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Washington Highlights

Heavy demand imposed by air lift operations into Berlin has prompted the Air Force to order an emergency increase of 20 per cent in aviation gasoline purchases. Presidents of the country's major oil organizations have been informed by the Armed Services Petroleum Purchasing Agency that the armed services were in pressing need of 900,000 barrels of 100/130 grade aviation gasoline. It is necessary to carry out lifting operations to the end of September. This is in addition to previously announced requirements and an added 500,000 barrels for lifting from October 1 to the end of 1948. Commander Carl Drescher, executive officer of the Armed Services Agency, was in New York recently to explain personally the armed forces' needs to oil company heads.

The U. S. Bureau of Mines jointly with Union Oil of California and the Pacific Oil Co., a subsidiary of California Standard, have mapped out a diamond core drilling program to probe the character and areal extent of oil shale beds in Western Colorado. The first holes probably will be sunk in the Green River formation, northwest of Rifle and Grand Valley.

Enough oil tankers will be on hand to meet demands for some time in the future, according to estimate of the National Petroleum Council. The council is of the belief that there is no apparent need for emergency governmental measures placed in effect last winter. The world tanker fleet now totals 1863 vessels of 2000 tons or more, or 1264 T2 co-equal bottoms, of which 1012 units are available for service in normal petroleum commerce. On order or in the process of construction are 299 T2 equivalent ships, according to the NPA tanker committee. Of the total number of world oil tankers, 42.9 per cent are United States owned. Nations sharing in the European aid program hold 42.7 per cent. Russia owns 1.1 per cent.

A year's extension of the conditions under which oil currently is being produced from California tidal lands, has been announced by the Department of Justice. The conditions were drawn up following the decision of the Supreme Court that the Federal Government has a "paramount interest" in the submerged lands. Terms of a pact between California and the Government calls for all rentals, royalties and other payments accruing from the oil be held in a special fund for later distribution concordant with a court decree or adjustment. The extension continues for 60 days beyond July 31, 1949. No longer than 30 days after July 31, 1949, the interested parties agree to consider a further prolongation. The original agreement was dated July 26, 1947. A measure designed to return tidelands to the several states was passed by a large majority in the House. However, it died in the Senate in the adjournment rush.

Secretary of Defense Forrestal has approved contracts involving an initial outlay of $367,000,000 for airplane engines. The Air Force announced that the greater portion of the engines will be jet in line with the gradual change of war planes from standard reciprocating engines to the high speed jet type.

According to the Department of Commerce, per capita use of petroleum is approximately 69 per cent higher than in the 1935-1939 period. The Department views the increase as stemming from the increased use of Diesel-electric locomotives by American railroads and residential oil burners for domestic heating purposes.

The Office of International Trade has issued current export bulletin No. 470, setting up a unit process procedure by which export license applications for several different commodities directed to the same consignee may be combined and executed as a single application.

A. Jacobsen, Amerada Petroleum Corp., has been named chairman of a 25-man committee set up by the National Petroleum Council to work out views of the industry on a national oil policy for the United States. Pacific Coast oil companies are represented on the committee by R. G. Follis, California Standard, and A. C. Mattei, Honolulu Oil Corp.

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● The CONTROLLED TURBULENCE Combustion Chamber *and* the specially designed intake manifold are but two features of the Waukesha 6-BZU power unit's most-modern-design features.

With this combination more usable power is built into this Waukesha unit, in such a way that it can put out that extra power with increased fuel economy.

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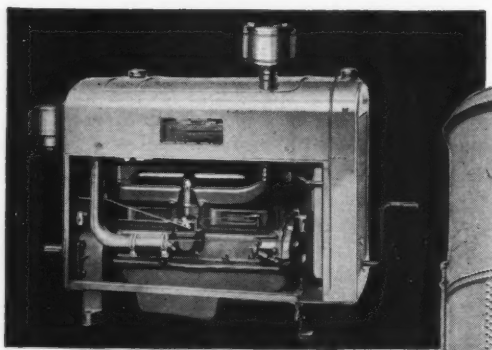
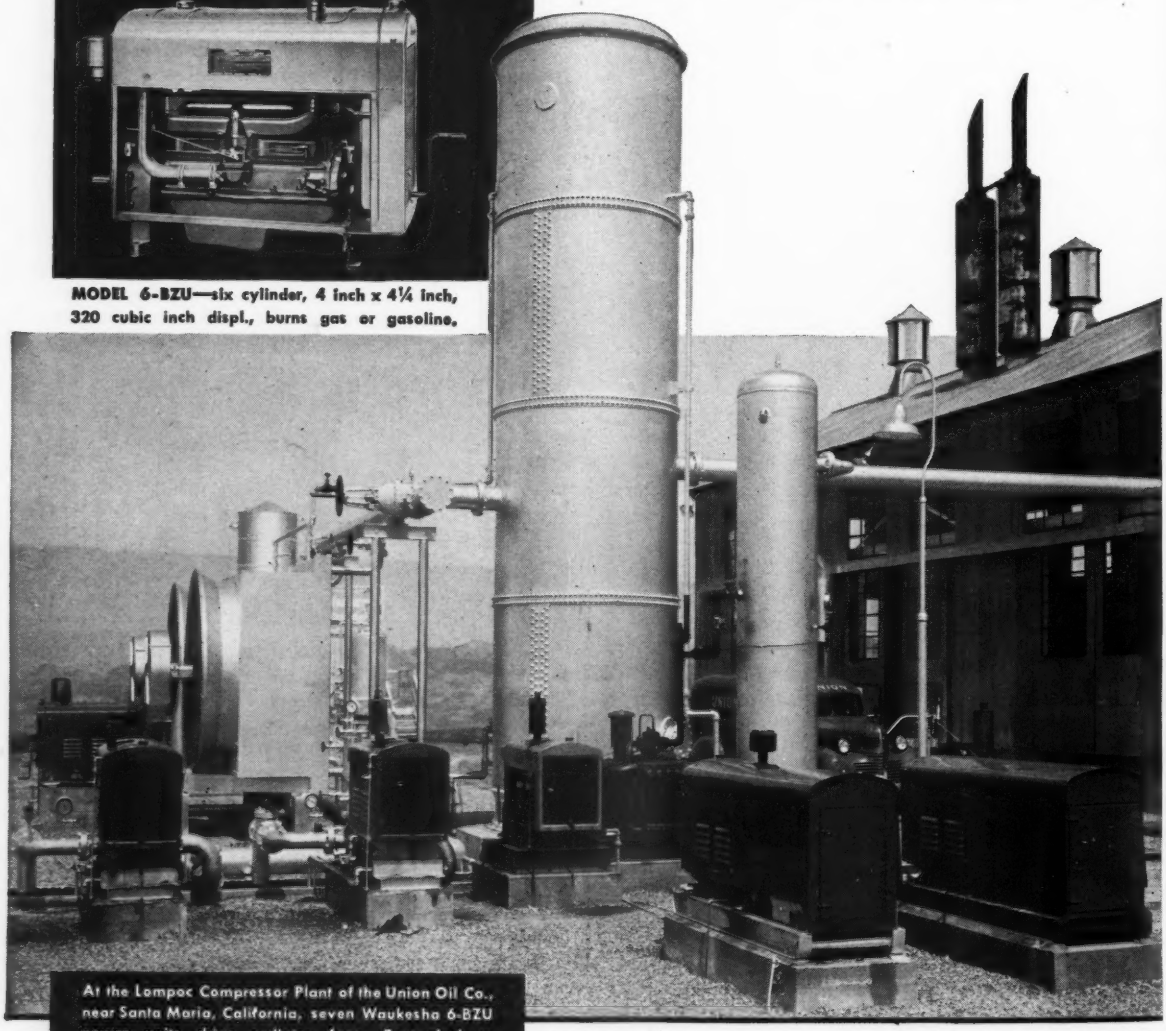
And the fuel charge is balanced. That means it is evenly distributed between the cylinders. The power delivered is *smooth* power. Heating of the incoming fuel-air mixture varies, as the load requirements vary. That makes the engine respond instantly to power demands. Bulletin 1269 tells you all about rugged construction and longer wearing working parts.



MODEL 6-BZU—six cylinder, 4 inch x 4¼ inch, 320 cubic inch displ., burns gas or gasoline.



At the Lompoc Compressor Plant of the Union Oil Co., near Santa Maria, California, seven Waukesha 6-BZU power units drive radiator fans, Byron-Jackson pumps, air compressor, and electric generators.

WAUKESHA MOTOR COMPANY, WAUKESHA, WISCONSIN

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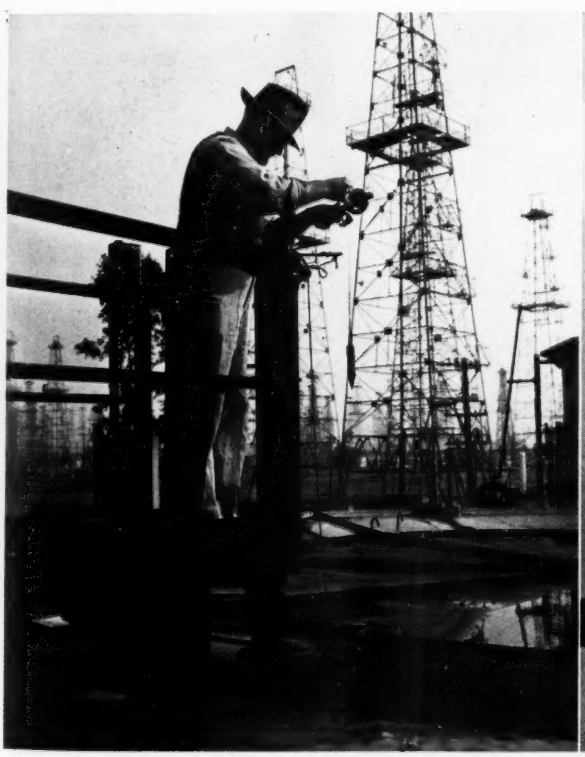
Field Measurements And Tests

From the moment that the first barrel of oil was produced commercially, quantitative measurement became an important factor in the scheme of things, and no sooner was this realized than it became necessary to standardize on some definite unit. What the excuse was for settling on such a cumbersome entity as the 42-gallon barrel will probably never be fully known, but it is to be hoped that it was entirely accidental as is popularly believed, for it would be hard to condone such a poor choice by any rational institution or organization.

The popular story is that when the first oil boom came to the United States back in Pennsylvania about 90 years ago, barrels were the most convenient containers then available, in which to capture the production of the wells, and it was common custom right from the beginning to announce well yields as so many barrels a day. This was quite disturbing to the scientifically minded individuals of the time, particularly since the barrels that were being used were entirely lacking in uniformity. Eventually the disparity in barrel size so upset all efforts at sensible accounting that a committee was appointed to look into the matter thoroughly and to make recommendations for its improvement.

As a result of this study a resolution was passed by the Pennsylvania producers in 1866, as follows: "Whereas it is conceded by all producers of crude petroleum on Oil Creek that the present system of selling crude oil by the barrel, without regard to the size, is injurious to the oil trade, alike to the buyer and seller, as buyers with an ordinary sized barrel cannot compete with those with large ones. We, therefore, mutually agree and bind ourselves that from this date we will sell no crude by the barrel or package, but by the gallon only. An allowance of two gallons will be made on the gauge of each and every forty gallons in favor of the buyer."

The choice of the basic forty gallon lot was probably made because a checkup of the barrel being used showed this to be the most prevalent size, and the addition of two gratuitous gallons to every forty was likely just a big hearted gesture to compensate for spillage and evaporation losses. However, it is to be noted that despite this resolution, the producers continued to quote on a "per barrel" basis, but at least the barrel was now of unit size—and what a unit, forty-two gallons! We shall never know the endless time, energy, patience and actual money that has been squandered by generations of otherwise conservative oil men in accounting, on the basis of the 42-gallon barrel, for the billions of barrels of



Quantity is an important factor in almost all phases of petroleum operation, from the primary production at the well to the final disposition of refined products. The gauger is here gauging a tank of crude oil through the hatch provided for the purpose.

The suction line is sealed closed or opened, depending whether oil is being pumped into or out of the tank. This is sometimes a measure to make sure that no other operator will inadvertently switch the valve during the course of an operation. It is also a protection against theft.

OIL-FIELD MACHINERY

Assembly and Repair Service

Bethlehem Supply does more than merely sell and deliver a variety of oil-field materials. When a piece of machinery is bought from this company it is assembled, set up, tested and then turned over to the customer as a properly operating unit. Equally important, when this machinery has had long use and finally needs repairs Bethlehem Supply can handle the entire job.

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Suppose one of your Waukesha engines needs complete overhauling or rebuilding—let us know and we will take it into our modern shop where we can do the work in the shortest possible time. When we return the engine it will be fully reconditioned, tested and ready for uninterrupted service.

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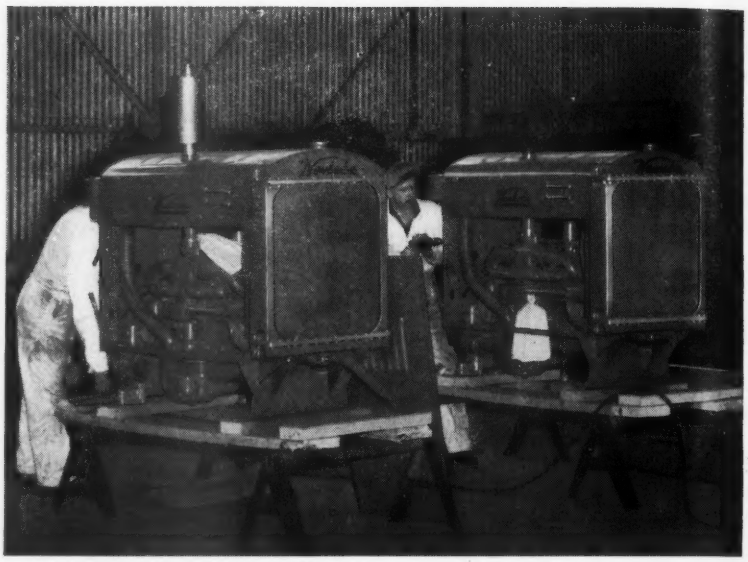
Or, suppose some of your equipment breaks down during the night and you need an emergency repair job—give us a call and we will send a trained mechanic with a special truck equipped to do this kind of work in the field.

We can offer these services because we are equipped. We have a force of competent mechanics who have had long experience with oil-field machinery. We have a large shop with a variety of precision machine tools, jigs, assembly stands, testing apparatus, and cleaning equipment. In addition to this, we carry replacement parts for 14 models of Waukesha oil-field gas engines.

Remember that Bethlehem Supply is ready to handle your routine or unusual mechanical problems day or night.



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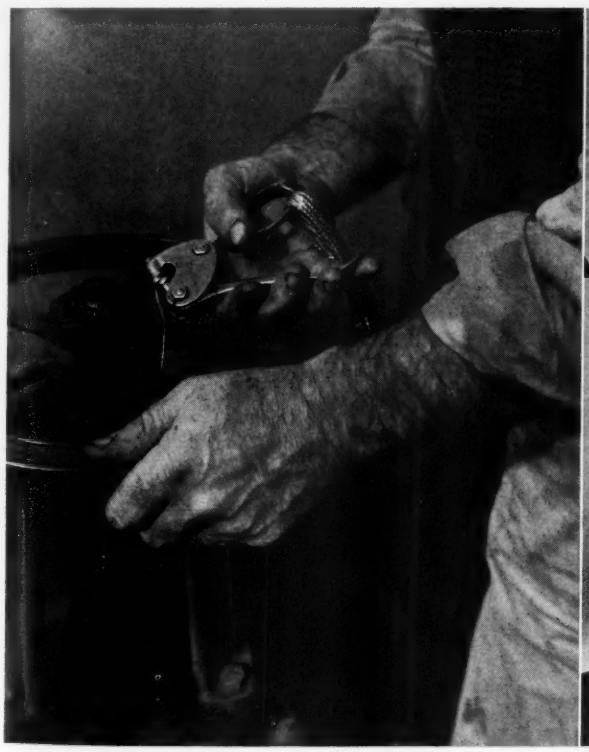
crude and refined oils that have been produced by the industry to date.

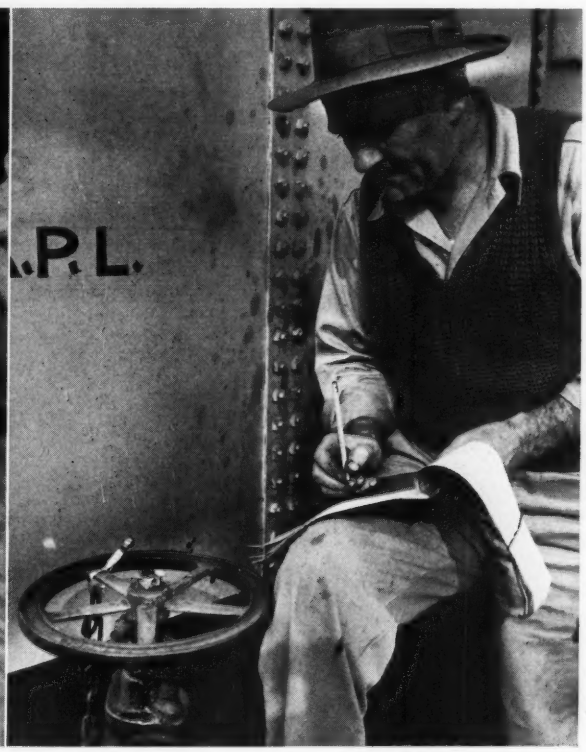
In any case, regardless of its awkwardness, it is now pretty universally accepted as a standard volumetric measure for petroleum and most of its liquid products. And, with the establishment of the unit there immediately arose a need for some simple, speedy method of determining the number of such units in any given container, and especially those containers that are essential to the manifold phases of petroleum operation. Thus there sprang into being that ubiquitous chap, the gauger. The early literature of the industry is devoid of mention about him, from which it might readily be deduced that he is either very modest or is a comparatively new comer to the business. But appearances to the contrary the gauger is an age old institution. There is little doubt that when the Burmese laboriously carried their crocks of oil down to the river bank, a tally man with an abacus kept track of the number of loads that were dumped, and made out some sort of receipt for the cargo. Later when the American Indians soaked their blankets in the oil seepages, and wrung them out into tubs, it may be assumed that some busybody was delegated to weigh the blankets before and after, or in some such manner to play the part of the gauger, even if his calling may at the time have been disguised by another title.

The business of gauging as we know it today undoubtedly began with the introduction of cylindrical tanks, and that was practically at the birth of the industry. Substantially it remains the same now as it was then, excepting for refinements in equipment and technique. Before the gauge tape was generally adopted for determining the depths of oil in any vessel, the "gauge pole" was a popular device. This, particularly in heavy oil, eventually became so thickly coated with successive layers of asphalt that it took a good stout man to pick it up, no one but a seer could read it, and wiping it off before taking a gauge was almost a major project. Besides it had a tendency to wear at the bottom, so even if it were readable, it finally became inaccurate.

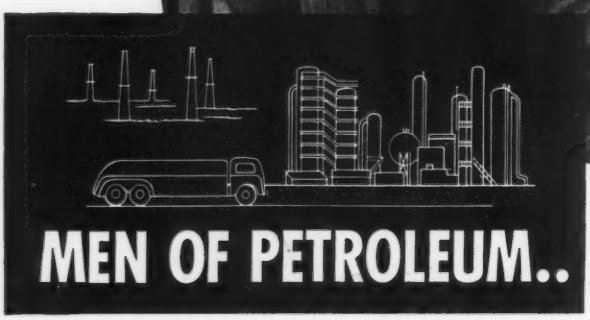
The introduction of a steel tape with a brass plumb bob at the end was a distinct improvement over the pole method. It is the most widely used device at the moment, and is very accurate when all the normal precautions are observed, and the capacity of the tank has been carefully defined. Most companies of any size maintain a department, the function of which is to calibrate tanks that are used for the receipt, storage, or shipment of oil or its products. The actual measurement of the tanks is called "strapping" and from the figures obtained, tables are prepared which show the capacity for every eighth or quarter inch of depth, depending on the size of the tank. Incidentally, these tables can be computed and typed automatically by means of an ingenious modern machine. Odd or irregularly shaped tanks usually have to be liquid gauged. That is, they are actually filled with liquid and gauged at various stages



The lead pellet is squashed with the seal press usually taking the imprint of the Company insignia. This is done in exactly the same manner as it is done by the car checker on a loaded freight car, and for the same reasons—to guard against theft and prevent errors.



The seal number is recorded and is checked when the operation has been completed to make sure that no change has been made in the valve setting in the interim. A change may be made either by accident or design.



MEN OF PETROLEUM..

GEOLOGIST... our front-line scout—our sharp-eyed explorer of the earth's crust. With sensitive instruments and a seasoned "rock-sense," he probes deep into underground structures. This geologist is checking core samples; looking for formations that may indicate oil. Then it's up to the drillers to prove whether he's right or wrong. Thus our geologists touch off the long chain of events—from drilling to marketing—that end up with the countless petroleum products serving America.

STANDARD OIL COMPANY OF CALIFORNIA

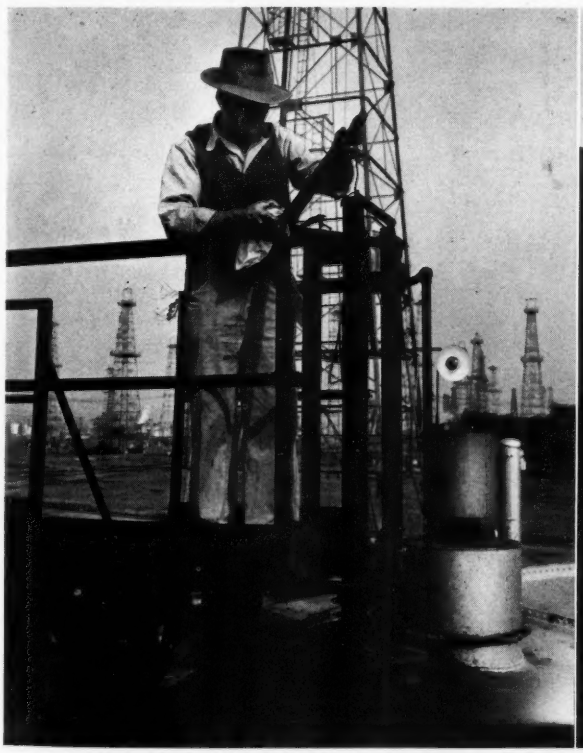
during the filling, in order to set up gauge tables.

Each gauger, no matter what department he serves has available a set of such tables covering all the containers with which he is concerned, and is thus supplied with a means of determining quickly the capacity of any section of any tank. Ordinarily, lease run-down tanks are erected in pairs, so that when one is filled the stream can be diverted to the other. Such tanks may contain the output of one well or a number of wells, depending on circumstances. When two or more wells are received into the same run-down tank, it is possible, although difficult, to calculate the separate production of each contributing well, if delivery rates for each have been determined in advance. The total fluid may then be prorated on the basis of the predetermined rates.

The foregoing system, of course, becomes decidedly inaccurate and inapplicable when the wells are irregular in yield. The only solution to the problem then lies in increased tankage, or lead line meters. Still better are lead line meters with adequate samplers, as will be demonstrated further along in this dissertation. There are many different types of meters—positive displacement, weigh meters, etc.—but in general the meter type of installation where it is applicable results in greater ease of operation, reduced investment in lines and tankage, and increased flexibility.

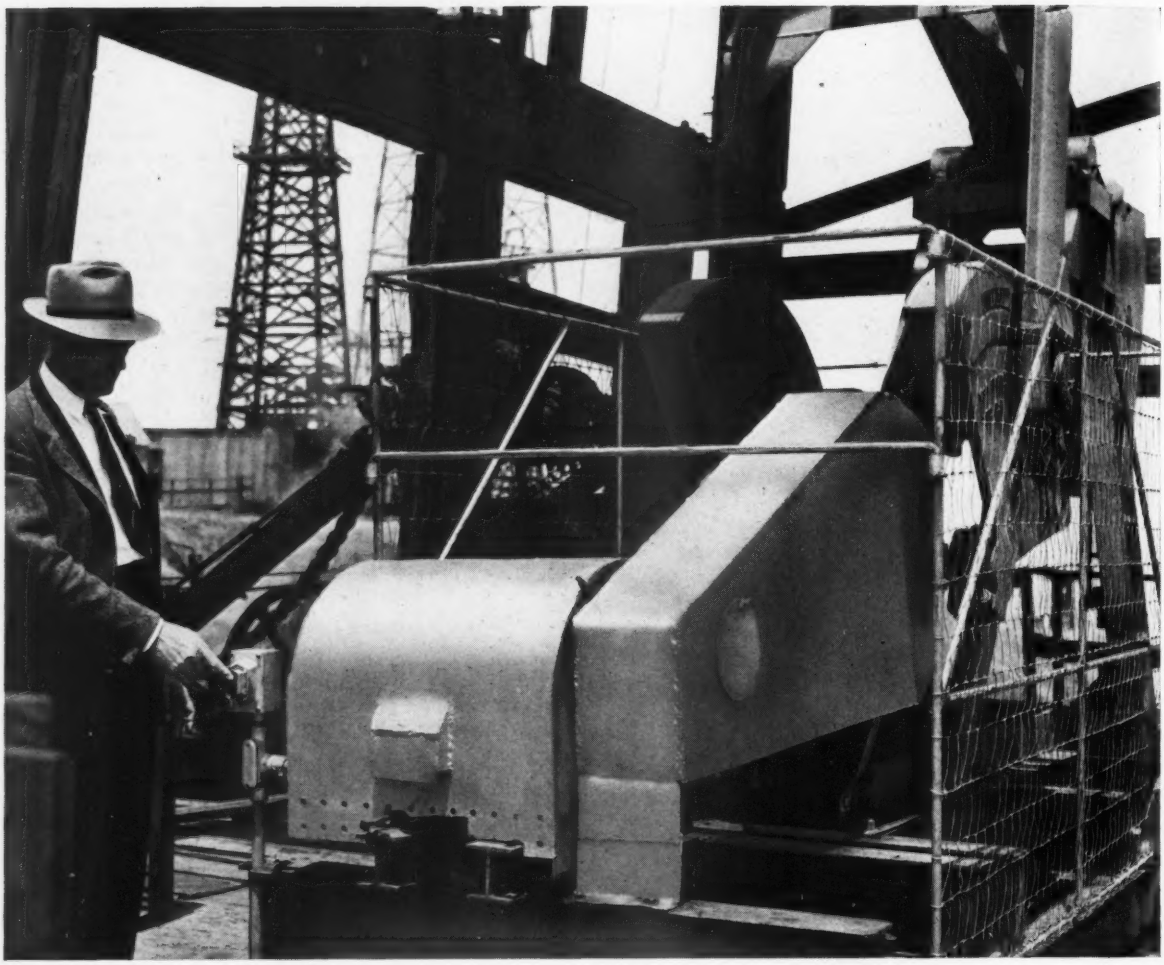
For pipe line shipping tanks, from which the oil goes off the lease and accounting must be made to a lessor or vendor, with the greatest possible accuracy, the gauge tape method is still the most widely acceptable. It is the duty of the pipe line gauger to determine by meticulously defined methods, both the quantity and quality of oil delivered by the producer to his department, and when one considers the enormous quantities of oil that are handled by the pipe lines of California in the course of a year, the need for careful workmen and precise methods will be at once realized.

There was a time when the gauger made the rounds of his field in a buggy, and threw rocks at the tanks to find out whether or not they were ready to ship. But that day has long passed. The field and pipe line gaugers now make their rounds in well equipped motor vehicles, and they know before they start out what has to be shipped and what hasn't. Modern methods of communication have taken care of all that. Even the refinery gauger whose territory is normally much more circumscribed goes from one location to another by means of a small truck, a motor bicycle, scooter, or other similarly speedy type of transportation. Indeed, in every conceivable manner, although methods remain fundamentally the same as they were many years ago, facilities have been improved, and greater precision has been acquired through constant study. It is also to be remarked that in the main the gaugers' laboratories are now equipped with the most modern apparatus for testing, and they are, therefore, able to perform much more effectively than were their early predecessors.



All quantity measurements are adjusted to 60 degrees F. by means of the expansion coefficient for the particular gravity group to which the oil belongs. The temperature of the oil is here being taken with a thermometer that has been suspended in the tank.

The bottle thief takes a continuous sample when it is lowered to the bottom of the oil and returned to the surface at the same speed. I may be employed to take a one-way sample by corking the bottle while the descent takes place, and uncorking for the upward trip.



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Complete data on electric power services for the oil industry is available without cost or obligation. Consult Edison oil field engineers.

SOUTHERN CALIFORNIA EDISON COMPANY

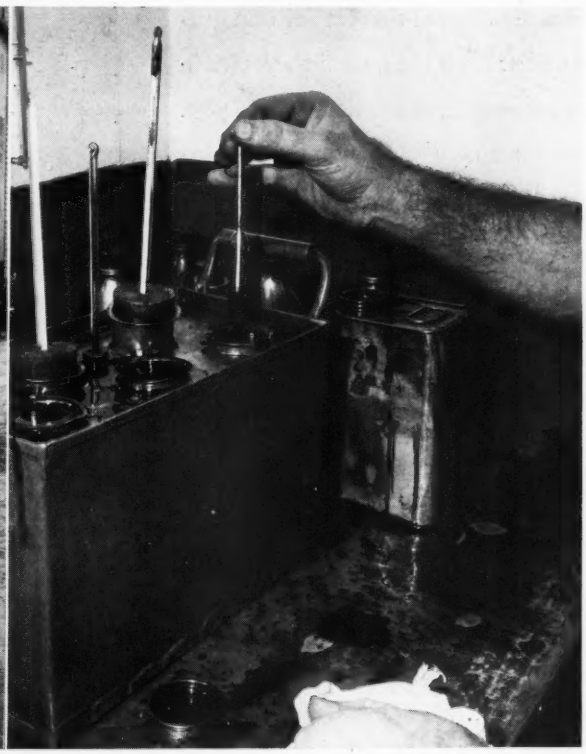
Returning now to further discussion of methods, their effectiveness, and significance, we had begun to examine the tape and plumb bob system of tank gauging, and had mentioned that there were certain precautions that must be observed to assure consistent accuracy. In the first place, it is advisable that tapes be checked periodically against a master tape, and that the task of mending broken tapes, if there is any justification for it at all, be assigned to a properly qualified and equipped calibration agent. Then, assuming the tape to be all right, the gauger, having checked all valves, (in the case of a shipping tank) in conformity with his authorized procedure, now proceeds to take the opening or high gauge. This he does by carefully unreeling the tape down into the oil, until the plumb bob just touches the floor of the tank. The depth of the oil is next read off and recorded. When the tank has been pumped out, he in the same manner determines the closing or low gauge.

Over the years every possible variation of this method has been tried. Because of the fact the sediment may pile up on the tank floor, some operators prefer to insert a gauge plate above the floor level and so direct the tape that the plumb bob will contact this plate. Others have used what is known as the outage method. That is, they have fixed a point above the hatch, and gauged from that to the surface of the oil. Such improvement as may be derived from these modifications is largely circumstantial. By and large, gauging to the bottom of the tank is as accurate as any of the modifications. It is possible that the floor may change contour slightly over a period but the effect of this is largely lost because the significant quantity is that which lies **between** the gauge readings. By the same token, while the tank shell may develop a bump here and a dent there, these irregularities are usually compensatory. And, if they don't quite balance in one tank, they are pretty sure to do so in any group of lease tanks.

It is obvious that the gauger must not allow the bob to rock, otherwise the depth shown will be inaccurate. However, gaugers are usually chosen for their aptitude in such exercises and they become very adept in their performance. There is one more respect in which the accuracy of the gauge is assured by the acumen of the gauger. It is usual for him to fix a mark, say the upper edge of the gauge hatch, which he observes when the plumb-bob is on bottom. If any irregularity develops in the tank bottom it is disclosed by a change in the reading at this point, and the good gauger simply moves to another location within the circumference of the hatch.

Immediately preceding the taking of the gauge, the temperature of the oil is obtained. This is done by reading a thermometer that has been suspended for some time in the approximate center of the liquid. So that the reading may not change when the thermometer is taken out of the oil, the instrument is equipped with a cup that retains about 50 c.c. of oil, in which the mecury bulb remains immersed. When the opening temperature has been noted, the thermometer is lowered to the pros-

Pouring the bottle thief sample into the container. It must thereafter be thoroughly mixed before being tested and must be kept in an intimate state of admixture until all tests have been completed.



The price of oil in each district is fixed by its gravity. The tester is here taking a reading with a hydrometer. This must also be corrected to 60 degrees F, so that the temperature of the sample must be taken accurately and simultaneously.

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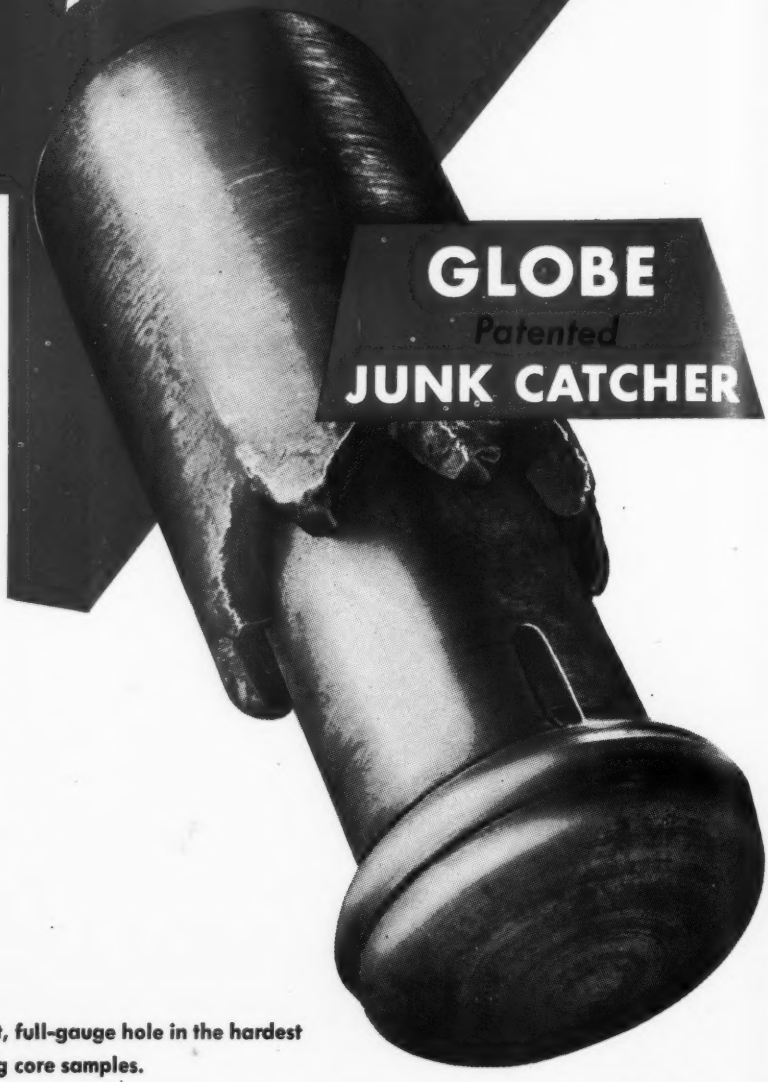

Typical of Globe's efficiency . . . solid metal and a tight fit.

* **DRILLING:** Makes straight, full-gauge hole in the hardest formations. Ideal for taking core samples.

REAMING: Milling action of teeth on side wall of hole assures a perfect reaming job while it drills.

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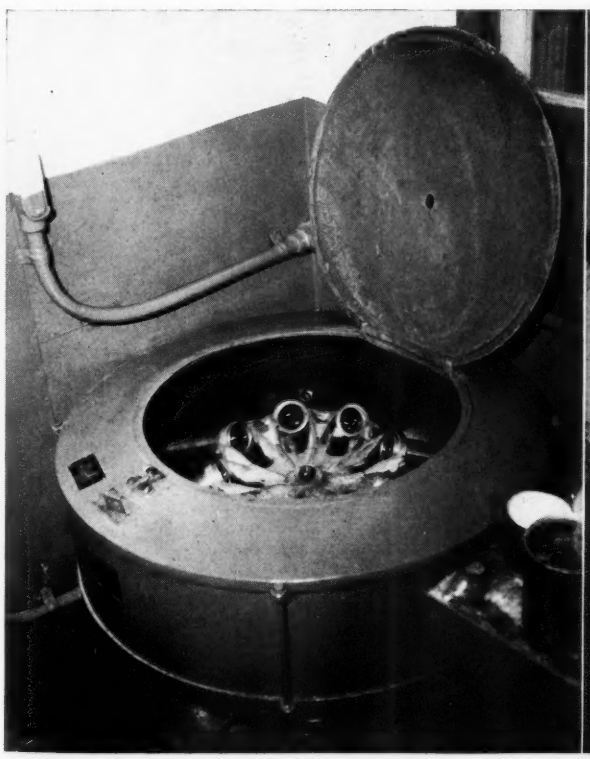
pective center of the oil that will make the low gauge. The two gauges are later corrected to 60° F by reference to a table of expansion coefficients. This, of course can not be done until the gravity has been determined, since each coefficient is applicable to a certain range of gravities.

The method of taking temperature here described is probably as accurate as any that can be suggested, since there is yet no known method of determining tank temperatures with absolute accuracy. A thermometer set in the middle of the fluid to be shipped may very well yield a reading as close to the average of the entire shipment as any other means that might be tried. The fact is that temperatures vary widely both vertically and horizontally in any one tank, and in the same tank may vary just as widely but in an altogether different manner, next time it is filled. There has been loads of research work done on this problem but it is still unsolved, and in the meantime it is rather certain that the prevailing system is as accurate as anything so far developed.

The sampling of bulk oil for test is a subject that has also been given a great deal of thought by chemists, engineers, and other technologists. It is a comparatively simple business when the oil is uncontaminated and completely homogeneous, but when, as is often the case, there is lack of uniformity, both through the vertical and horizontal sections, the problem of securing a representative sample is by no means easy. For the sampling of dry oil, the bottle thief is quite satisfactory, but when an oil contains loose emulsion or free water, some other method must be used. There are a number of methods that may be used in the latter case, and they are all open to some objection, but a reliable and universally applicable sampling method for use in all tanks of oil containing loose emulsions and/or free water, seems to be quite beyond human ingenuity. At least it is not forthcoming yet. This is because emulsion does not always stratify in a uniformly horizontal plane, nor, indeed, does free water. Permit emulsified oils to settle in glass containers, and note the frequent irregularity of the interface, if there is any, between the emulsified oil, and the free oil. By the same token, heavy wet oil has a tendency to hold up free water in pockets that are quite unevenly distributed.

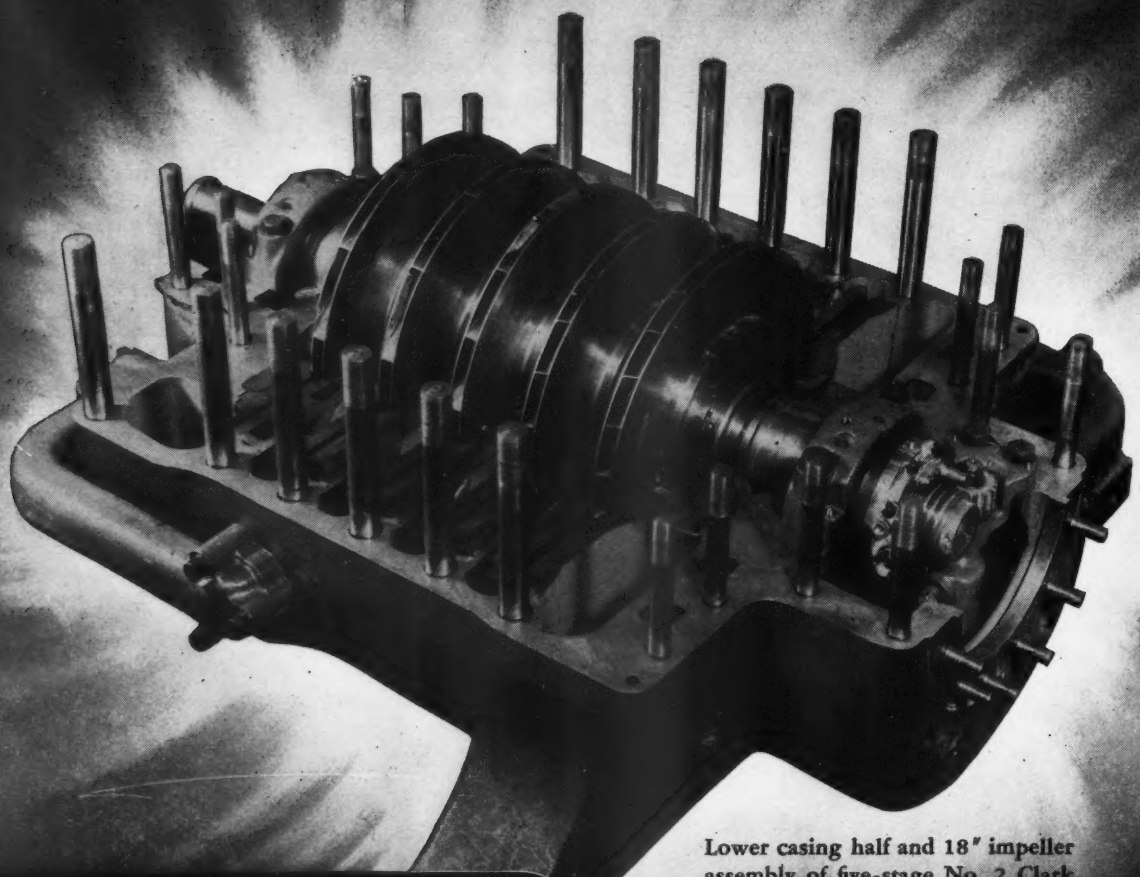
It must be emphasized that we are speaking of conditions that are not allowed to exist in the tanks from which oil is pumped direct to the pipeline department, and for which payment must thereafter be made either to a lessor or a vender. Such oil, if heavy in water content, either emulsified or free, is normally dehydrated before it is turned over to the pipeline gauger. For the sampling of dry pipe line oil, the bottle thief is quite adequate. If, however, in other operations, such as the taking of stock inventories, or the determination of water content for special purposes, the oil is excessively high in emulsion, one of several types of continuous core samplers may be used to better advantage. Even these, in exagger-



The simplest method of taking a water test is by means of the centrifuge machine as shown here. All details of the machine, particularly with respect to diameter of swing and r.p.m., are carefully specified.

Under rare conditions the water content can not be accurately determined by the centrifuge test. Resort is then made to distillation or some other method to break unusually resistant emulsions.

CLARK CENTRIFUGAL



Lower casing half and 18" impeller assembly of five-stage No. 2 Clark Centrifugal Compressor. 1,870 BHP.

Write for Bulletin on Centrifugal Compressors

PROPANE REFRIGERATION

For the MEK Solvent Dewaxing Process in manufacturing lube oils, Clark is building seven Propane Centrifugal Refrigeration units to operate at approximately –20° Fahrenheit. Other Clark Propane Multi-Stage Centrifugal Compressors will operate at a higher temperature to cool absorber oil.

Clark's Multi-Stage Centrifugal Compressors, designed for use with Propane and other hydro-carbons as refrigerants, are particularly suitable for high pressures and large volumes. They can compress capacities from 2,000 to 120,000 c.f.m. with discharge pressures up to 475 lbs.

With the Clark multi-stage design, two or more compressors can be connected in line with one driver for through drive, thus saving floor space, also installation and operating costs. They can be driven either with a directly connected turbine or a motor through a speed-increasing gear.

Clark's Multi-Stage Centrifugal Compressors can be arranged quickly and easily to meet any desired pressure or capacity within the ranges stated above. Standardized design permits use of interchangeable parts and easy adaptation to different types of service, as well as speed in filling orders. Write for full information.

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CLARK

ONE OF THE DRESSER INDUSTRIES

SETS THE PACE IN COMPRESSOR PROGRESS

ated conditions, may be off, and it may be necessary to sample the container at a large number of locations in order to average down the differences in stratification.

The entire question of sampling has also been under constant study for many years, and a number of sampling devices have been invented most of which have merit, but most of which are not adequate to satisfy all of the varigated conditions with which the industry has to contend. A double walled tube with concentric ports that when opened can take a full core from the top of the fluid to the pre-determined low gauge level, is one of the best. When the tube has taken its sample from all levels, the ports are closed off from each other, and the sample is run out through a valve at the bottom. This is open to the objection, already expounded, that the sample only represents a vertical section of the tank at one horizontal location. When, the oil and emulsion are unevenly stratified, this sampler would still be lacking.

It would seem that the most likely chance of getting a true sample of an oil shipment would be to utilize some form of line sampler, that is, one which would take a continuous proportionate and representative quantity of the oil as it passes from the tank into the line or as it flows along through the line at some point near to the shipping tank. Even this apparently ideal situation is cluttered up with factors which make its full acceptance open to doubt. In the first place, it appears that in normal line travel there is distinct stratification according to gravity and viscosity, so that in order to get a representative sample it might be necessary to take the full cross section of the line, which means the entire content of the tank. In the second place, after the oil has passed from the vendor's tank into the purchasers pipe line, it is going to be very difficult in most instances to argue as to the accuracy of the sample. In any case it is a provocative subject that should stimulate the best brains of the industry.

On the assumption that a representative sample of the tank content has been secured, that the content is crude oil, and that we are going to pay someone for it, we next must determine the water content. The water, of course, must be deducted on order to arrive at the net quantity of oil for which we must pay—obviously we wouldn't want to pay for the water. The two principal methods of water determination are the centrifuge method and the distillation method. The former is much simpler of the two and is excellent for dry oil, that is, oil containing less than three percent of water, or oil containing an emulsion that can be broken by some chemical reagent, such as Tret-O-Lite, which is soluble in the oil phase. For such samples, a measured quantity of the oil is diluted with a solvent to increase the gravity differential between the oil and water. To this, if an emulsion is present, may be added a spot of the proper demulsifying agent. The whole is then immersed in a warm bath for a specified period, and then centrifuged until the water separation at the bottom of the centrifuge tube remains constant through two or more consecutive whirlings. This quantity multiplied by the appropriate factor gives the percentage of water and B.S. (a cryptic term, meaning "bottom sediment" in this case).

The distillation method for water also involves mixing a carefully measured quantity of the oil with a solvent in a retort, connecting it to a condenser having a graduated receiver at its outlet end. Heat is then applied, gently at first, and more strongly as the distillation proceeds. The heat expands the oil envelope surrounding the water globules, or the water envelope surrounding the oil globules, depending on which kind of emulsion is present. In any case the globules are ruptured and the water, driven off as steam, is condensed, and dropped into the receiver. Here because of its lower gravity it sinks to the bottom and may be read off directly. The distillation method, as has already been indicated, is especially applicable to those samples which contain emulsions that are difficult to resolve. In either case, however, the application is simple. Knowing the percentage of water in the sample it is a simple arithmetical problem to determine the volume of water present in the total volume of oil, and deduct it to find the net oil present, or shipped as the case may be.

Precautions here are again primarily those of sampling. The instant one stops agitating a mixture of oil and water, or oil and emulsion to a lesser degree, a settling, or separation of the two components begins. Thus even in the case of the comparatively small can sample, it is necessary to pour the sample for test as quickly as possible after the mixing has been done, in order to be sure of arriving at the true water content. This necessity is a bit disturbing, since one at the same time has to be careful not to shake the sample enough to drive off light fractions and lower the gravity. With either method it is possible to get very accurate results, so long as the portion to be tested is representative of the total sample. It might also be pointed out that in the distillation test it takes an experienced operator to prevent wet oil from "peuking"—a messy performance that the lab technician likes to avoid if at all possible.

We have so far determined the net quantity of oil involved in the transaction. The next step is to find the unit price per barrel and the total price we shall pay for the shipment—if that should be the purpose of our endeavors. The price of crude oil in each district varies with its gravity, but it should be understood that gravity in itself is a poor determinant. The reason it is used is that the industry has by virtue of many tests established the relationship between refining value and gravity in the various districts, which explains why crudes of the same gravity from different areas may have different prices.

It is interesting that the present API gravity scale is an accident. It was adopted to save the oil industry a lot of inconvenience many years ago. The popular gravity scale then was the Beaumé scale, still widely used in industry. This Beaumé instrument was based on a certain modulus which it is not necessary to repeat here, but when the ASTM made a check of the instruments in use by oil people, they found its modulus didn't conform. There was some question of calling

in all the instruments and scrapping them, but someone had a brainwave, and instead of doing that, they simply adopted the new modulus, changed the name of the scale to API, and another minor catastrophe was avoided.

The gravity test as it is performed in all laboratories for this purpose is simply a matter of mixing the sample thoroughly and floating a hydrometer in it. A direct reading is made, immediately following which the temperature is also taken. The gravity is then corrected to 60°F by means of temperature correction tables. The process is not easy when the sample is wet. When settlement of water or emulsion is taking place rapidly, the hydrometer may float in the lighter portion near the surface and give a result that is too high, or may reach into the heavier portion near the bottom and give a result that is too low. This requires that the reading be taken soon after mixing the sample. On the other hand, mixing may make the sample spongy with entrapped gas, and it is necessary to temporize between the various conditions in order to secure accurate results. An experienced operator knows these phenomena and how to cope with them. It is largely a matter of instinct that should be reduced by research to a methodical procedure.

It is fortunate that pipe line oil is dehydrated when excessive oil or emulsion is present, and the taking of gravities is then both simple and accurate. The removal of water converts the oil to practical homogeneity, and the taking of a hydrometer reading then loses all the complexities to which we have referred. However, it is frequently necessary for other reasons to be able to determine the gravity of wet oil, and then this course is open: Water present is removed by centrifuging after the addition of a demulsifying agent, the dry oil is poured off and the gravity determined in the usual manner. The percentage of water present and its gravity are previously determined. It is then a simple matter to calculate the gravity of the original mixture. It might be remarked that API gravity has a mathematical relationship with specific gravity, but it still confuses the neophyte to find that as one goes up numerically, the other goes down.

In conclusion there would seem to be ample reason for a concerted effort on the part of all operators to devote more study to the discrepancies and disparities that develop in the handling of wet oil. Perhaps the answer lies in binding oil and water together into tighter emulsions, so that they will remain intimately mixed long enough to permit such tests as have been mentioned without appreciable settling. Then there is the question of adequately sampling such media. These things, of course, have already been the subject of much debate and actual investigation, but there is still much to be done. We are into the era of remote control gauging and push button pumping. There is no reason why these other contingent problems should not eventually be solved.

A permanent monument sponsored by the Signal Hill Business Association and commemorating the discovery of oil at Signal Hill on June 5, 1921.

The base of this monument is solid granite, and the derrick, which was a contribution of the Emsco Derrick & Equipment Company, is 9 ft. high, and is made to scale. The derrick is made out of monel metal.

2718 shots in a row... without a misfire!

BJ Gun Perforator Service

Maximum penetration with bull's-eye accuracy

BJ GUN PERFORATING SERVICE is built around a remarkably simple, efficient and foolproof Perforating Gun... the *only* Gun that detonates the entire powder charge *in the barrel* before the bullet is discharged (this means concentration of power behind the bullet and elimination of the shock wave that causes pipe splitting). The BJ Perforating Gun fires all shots *simultaneously,* places shots exactly where the operator wants them, shoots clean, burrless holes.

2718 SHOTS IN A ROW, without a misfire, was no accident. Due to the simplicity of the gun and precise control over its operation, the record shows that 99 percent of all shots placed in the gun fire successfully. This means fewer trips into the well, less time on the job, more accurate placement of shots.

ACCURATE DEPTH MEASUREMENTS! The BJ depth measurement system, an electrically controlled, synchronous motor arrangement, is accurate and dependable. Job records show a consistent measurement accuracy.

LESS RIG TIME! Service trucks that fit the job are now available. This, plus all-around operating efficiency of gun, auxiliary equipment and our experienced shooting crews... adds up to less rig time.

PROTECT YOUR INVESTMENT! The BJ Gun Perforating Service is available 24 hours a day.

PRESENTLY AVAILABLE IN CALIFORNIA ONLY

Los Angeles Basin
Telephone: JEfferson 2596
San Joaquin Valley—Telephone: Bakersfield 2-5911
Coastal Districts—Telephone: (Los Angeles)
JEfferson 2596

TESTS PROVE ability to shoot three strings as indicated above. Under actual well conditions, two strings are shot with consistent ease (test set-up above shows 7" 28 lb. pipe cemented inside of 9⅝" 36 lb. pipe cemented inside of 11¾" 47 lb. pipe).

Byron Jackson Co.
LOS ANGELES 54, CALIFORNIA
Offices in Principal Cities

LAUGH THIS OFF!!

Rob: They say jet planes can be run on corn liquor.

Roy: With corn liquor, who needs a jet plane!

Theater manager: "You're quitting your job as usher already? Why you only started a half hour ago."

Boy: "Sorry, but I've seen the picture."

Wife (at husband's office): "You don't know where he's gone? Perhaps his secretary could tell me."

Office boy: "She sure could—she's gone with him."

Bachelor girl: As a household companion, a gold fish has certain advantages.

Second same: Yeah. He needs to be fed only once in three days, and you always know where he is and what he's doing.

Talkative youth: I can't see what difference it would make to me if my grandfather was an ape as Darwin suggests.

Bored listener: Neither can I. But it must have made a difference to your grandmother.

One way to get a good, lasting finish on your car is to try and beat the train to the crossing.

Remember way back when it was possible to know the price of a new car by reading the ads?

"Beardsley, I said, measure her TYPING ABILITY! ! ! !"

New stenog: "How do you spell 'graphic'—with one 'f' or two?"

Boss: "Well, if you're going to use any, you may as well go the limit."

"Waiter, what is this?"

"That's bean soup, sir."

"Never mind what it's been, what's it now?"

"What's wrong with marriages?"

"Nothing. All marriages are happy. It's the living together after marriage that causes trouble."

"Well, dear, and what did mama's little baby learn in school today?"

"I learnt two kids not to call me 'mama's little baby'."

Biddle: So you're not going to study for the ministry?

Fiddle: Don't be stupid—how would you like to be known all your life as Fiddle D.D.?

Tailor: You say you can't pay for the suit for three months? That's all right, sir.

Cadet: Thanks. When will it be ready?

Tailor: In three months, sir.

"Thanks very much for the present."

"Oh, that's nothing to thank me for."

"That's what I thought, but mother told me to thank you just the same."

Passerby: "What kind of fish are in this stream?"

Fisherman: "That's what I've been trying to find out for six hours."

"Too bad there aren't any two dollar bills any more."

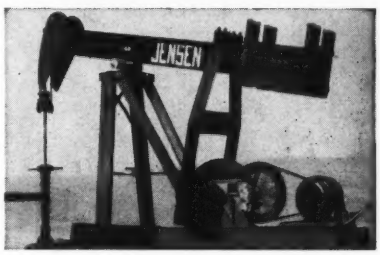
"Why?"

"One of them would come in handy for buying a dollar's worth of anything these days."

Editor: "Looks like another libel suit on our hands."

Lawyer: "What is it this time?"

Editor: "We printed in old Brown's obituary that he'd gone to a happier home and Mrs. Brown is suing."



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EXPORT OFFICE: 50 Church St., New York City

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What treating process can add "new refinery" economies in your modernization plans?

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The TANNIN SOLUTIZER PROCESS . . .

Here's why:

You immediately achieve substantial savings in TEL.

You profit through reduced loss of gasoline.

Your operating costs are extremely low with this thoroughly modern yet simple process.

With the Tannin Solutizer Process, you can generally adapt your existing treating equipment with almost negligible conversion costs.

•

We will be glad to give you more information on this established process. The TANNIN SOLUTIZER PROCESS is licensed under the rights of Socony-Vacuum Oil Company and Shell Development Company by

SHELL DEVELOPMENT COMPANY, INCORPORATED

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SHELL

Personalities IN THE NEWS

McKinney Elected Executive Vice-President of National Supply Co.

Arthur W. McKinney of Toledo, vice-president and general manager of sales of The National Supply Company, has been elected to the newly created position of executive vice-president of the company, it was announced recently.

Arthur W. McKinney

Mr. McKinney joined National Supply Company as a salesman in 1920 shortly after his discharge from the Army, in which he served as a lieutenant in the Signal Corps. He rose through various sales positions to become vice-president and general manager of sales in 1940.

A specialist in petroleum problems, Mr. McKinney held advisory positions in that field during World War II, serving as a member of Industry Advisory Council, Petroleum Administration for War; and member of Materials Subcommittee, Petroleum Industry War Council.

Mr. McKinney is a director of the American Petroleum Institute and was recently appointed a member of the National Petroleum Council by J. A. Krug, Secretary of the Interior. A few weeks ago he was elected president of the Petroleum Equipment Suppliers Association. He is a director of The National Supply Company, Oil Well Engineering Company, Ltd., Cheadle Heath, England; and Ohio Citizens Trust Company, Toledo, O.

Mr. McKinney was born at Olean, N. Y. and attended Allegheny College, Meadville, Pa. He is a member of the Duquesne Club of Pittsburgh, the Inverness Club of Toledo, and the Toledo Club.

Martin-Decker Appoints "Bus" Lease California Field Engineer

L. B. Lease

In keeping with their policy of continually expanding customer service Martin-Decker Corporation has appointed L. B. (Bus) Lease as California Field Engineer. This move gives California the same type of field facilities as the Gulf Coast and Mid-Continent Areas have. Lease has a good oilfield background—his father worked in California oilfields as "Bus" was growing up and watching Signal Hill develop. He worked on cable tools and his field activity included roughnecking at Redondo and for the Kern County Drilling Company, seismograph work at Coalinga. He also worked in the shop of a leading California oil tool manufacturer and was Field Representative for a prominent service concern.

During high school he played football and was a yell leader. After graduation he was an instructor in gymnastics and calisthenics and travelled extensively as an acrobat. He is married and has two children.

Resignation of Glenn H. Bowes as assistant regional geologist for Continental Oil at Los Angeles, has been announced. He has accepted a position as manager of the exploration department of the Hudson's Bay Oil and Gas Co., Ltd. Hudson's Bay Oil, an affiliate of Continental, maintains headquarters at Calgary and Winnipeg, Canada. The company has extensive holdings in the Turner Valley, Leduc. Llodminster and Viking-Kinsella fields of Canada. Also held are areas of unexplored acreage.

Bowes, born in Monrovia Calif., received his A.B. degree at Leland Stanford University. He did graduate work at the same school. He has been with Continental for 25 years, serving as geologist and assistant regional geologist at Los Angeles.

H. H. (Bob) Roberts, genial public relations expert for Standard of California at Los Angeles, took a week off recently for a richly-deserved vacation at Balboa.

Theo Northcutt at Tide Water Associated's Avon refinery won the company's coordinating committee's award of $1500 for the most meritorious suggestion submitted during 1947.

Joseph P. Crangle, editor of Shell Progress, a company house organ, addressed the San Francisco Adcrafters Club. His subject was "The Care and Feeding of a Company Publication." He naturally meant none other than the Shell Progress.

Fred V. Gordon, veteran California oil producer, has returned to his Los Angeles office in the Subway Terminal Building, after a siege of illness which kept him hospitalized for some weeks.

Thomas R. Barnes, senior geolgist in the Rocky Mountain area for Shell Oil, recently scored third place in the Governor's match at San Luis Obispo, the state championship for .30 caliber rifle shooting. He placed in nine of the eleven matches in which he entered.

Election of William B. Hubbard as president of the Anselma Oil Co. and the Realitos Oil Co., has been announced. He is president of the Cherry Rivet Co. Anselma Oil is a California corporation, the Realitos company a Texas corporation. Both companies were originally financed largely with Los Angeles capital and both have been paying dividends for years. Offices of the two concerns are expected to be moved to Los Angeles.

Reese H. Taylor, president of Union Oil of California, has resigned from the American Petroleum Institute board of directors' public relations committee. C. Haines Finnell, Union Oil public relations representative, has resigned from the Oil Industry Information Committee. The Union Oil president resigned because of pressure of other business duties and consequent inability to go East for meetings, it was announced.

Stanley A. Wilson, Arizona division manager for General Petroleum, retired on August 1. Paul R. Nilsson, present assistant division manager, succeeded to the post left vacant by Wilson.

Ashley DeWitt, widely known producer and contract driller, has returned from a vacation in Europe.

Directors of the recently organized Macrate Production Service, Inc., are Arthur N. Macrate, Jr., William F. Macrate and Robert I. Plomert. Headquarters are in the Jergins Trust Bldg. at Long Beach.

Walt Parker, Los Angeles independent oil man, currently makes his headquarters at the Bakersfield Inn at Bakersfield to be near his field operations at McVan and other San Joaquin Valley areas.

Twenty Years With D+B

Mr. Harold F. Tracy, Manager of California Field Stores for the D+B Division of Emsco Derrick & Equipment Company, Los Angeles, California and Dallas, Texas, recently passed the twenty year mark with D+B, and was presented with his twenty year service pin.

Harold F. Tracy

Mr. Tracy is well known by production men in all of the California oil fields, and has a rich background of experience in the design, application and servicing of deep well pumps and sucker rods. He was schooled at California Institute of Technology and the University of California.

George Ring, president of one of the largest independent oil organizations in the state, in recent weeks has been widening his interest in the turf. He is a member of the syndicate which purchased Alibhai for $100,000 and in his own right, he recently bid around $50,000 for a promising yearling. Ring Oil was among the first operating organizations at Santa Fe Springs and Signal Hill. Holdings in Mount Poso area are of exceeding value and importance as oil producing properties.

Don Sullivan has been appointed transportation superintendent at Signal Oil's Downey plant. He joined the company in 1944.

Macrate Production Service Organized

Arthur N. Macrate, Jr., announces the formation of the Macrate Production Service, Inc., at 3341 Cherry Ave., Long Beach, to engage in the oil well pulling and servicing business. The company has purchased an Ideco H-30-AD Rambler Rig with 90 ft. mast, powered by an 185 hp General Motors diesel engine, and expect to have additional units in the near future.

Associated with Mr. Macrate are Wm. S. Macrate, Vice President, Robert J. Plomert, Secretary, and John Augsberger, Superintendent.

Meter Association August Meeting

The Southern California Meter Association has been invited to hold their August 19th meeting at the Union Oil Refinery in Wilmington. After dinner in the Company cafeteria Mr, Robert Angell, instrument maintenance supervisor, will speak on "The Function of the Instrument Control Man." Following his address, Mr. Angell will conduct the group through the refinery shops and trainee classrooms. Dinner is scheduled at 6:30 P.M. A welcome is extended to all interested parties.

Darwin Clark, head of the Darwin Clark Advertising Co., has returned to his desk from a vacation down the California south coast. Clark is prominently identified with oil field tool advertising.

"Economic Aspects of Highway Developments in the Seven Western States" was the subject of an address by John M. Peirce, Western Oil and Gas Association secretary, before the Pacific division meeting of the North American Gasoline Tax Conference in Seattle.

Mr. F. J. Swarm for 27 years with Regan Forge & Engineering Company passed away on the 22nd of July.

Mr. Swarm, at the time of his death, was purchasing agent and comptroller for the company.

Mr. Swarm is survived by his widow and a daughter.

Kern County OIL NEWS

TO KERN COUNTY this month came weather, oil production and news of some storage, but also came demands to offset every oil production overage.

NEW KERN FIELDS are in the offing which accompany glad tidings and right now we are looking for a name of the field down Arvin way on the Tejon ranchos. Commanche point is not exactly it.

SOMEONE SUGGESTED Lupine Field after the wildflowers which used to bloom there as a Lupine Field. But Lupine, someone reports, means "wolf." How could that be with a gentlemen's agreement obtaining.

"MERS" . . . well after the adjustment in Buena Vista no more changes reported . . . suspect with the demand up with all time high quota that little conservation policing is necessary.

SOUTHWEST EXPLORATION'S John T. Tucker who said he lived in Huntington Beach in a box (Route 1, Box 179) was a visitor to Kern one day a fortnight ago. With him was Southern California's Gas Byron Austin (no pun intended) on McGee Drive, Whittier. Both were exploring at the time of contact and handled the conversation in terms of some praise. pitching for "COW."

WE MET E. G. HUTCHESON the other day and he proclaims to be a "swab oil saver." He is manager of the oil tool division of SANDERS BROS. OILDALE.

FRED SEALE of Bender Derrick Incorporated down on South Union told us the story has never been told about the "Bender Derrick" . . . so we are looking forward to no second invitation to visit the facility.

CHARLES LANZIT for eighteen long years with Natural Gas Equipment Company poised long enough in the post office, come one Sunday, to quip a line about gas trap regulation equipment which he is installing over in Cuyama.

YOU KNOW WHEN WE hear about five long years, ten long years and fifteen long years are long enough . . . we just wonder about it sometimes. And every-once-in-a-while we run into a fellow like "Lanz" as we call him, and there he is pitching increasing returns every year. But of course he is no prime minister, no secretary of state and probably has only one boss . . . "the public" and when he files his report he still has just one boss. In other words "he is doing good and getting credit for it" . . . that's good public relations . . . and nobody has any prior claims. It's politics that "don't tick" sometimes.

ANOTHER OLDTIMER in a way, especially since he is away from here, is CLARENCE F. JOHNSON . . . we remember him in Taft . . . we remember him wherever he goes and we can say that again. Last time we saw him, (fortnight ago to you but last night with us) . . . it was down in the foyer of the Los Angeles Chamber of Commerce building. He is still district sales engineer for the ARMCO-CALCO PRODUCTS. He does a lot of business up here in Kern with both oil industry and county connections. He has changed firm names, it seems to us. As a result, some notice has been displayed in various technical journals.

SPEAKING OF ADVERTISING we notice that for some reason or other, mostly for some reason like MATURITY OF WESTERN INDUSTRY et cetera, many firms have changed their names or modified their titles. If these firms never did any display work before it might be in order to do so now even though they do not have to . . . Our "TILLIE" at the office for 34 days rang up two inquiries a day on one Kern firm . . . WE ADVERTISED FOR THEM for the first time.

BURTON McCUNE knew we had spelled his name incorrectly before he had seen our copy of the yarn about him last month, so hence the correction. We add that his latest well, (that was more than forty-

SAN JOAQUIN GEOLOGISTS FAVOR EXHIBITS . . . Dr. Gordon Rittenhouse (center) addressed the SJG group recently on "Studies of Interpretive Petrology of Sedimentary Rocks." During the business part of the meeting the geologists went on record favoring exhibits of this kind of education at state and county fairs. Those instituting the idea were BOB RIST, GENE VALLAT, KEN KRAMMES and JACK HARDING.

MOHAWK VALLEY Kern County but not New York . . . it's a river of oil and gas instead of water and scenery. Here looking toward Fruitvale and evirons beyond toward Shafter is the famous 100 Octane . . . maker. Hard by the plant are canals, railroads and highways as well as oilwells and tank farms. Even agriculture encroachment is taking form on the surface rights of the valuable land.

eight hours back so Gene Reid must have ten more latest ones by the time you read this) was being cored at about 1100 feet. Incidentally Mac is doing a big business with his distributor agency for the desander, the bailing service and the rotary cleaner. He is in a happy position as regards business extension efforts and does not have to increase the cost of doing more business. At least he only has to share in it partly if he ever goes overboard for a nice display ad.

GREELEY SCOTT is a new acquaintance and friend on our long list of likables. He is pouring cement for Monolith helping out Harry Gardner with the Service Representative business. Greeley's Dad is with Oilwell Cementers and should know how to have trained the lad in pouring the man-made stone.

PAUL J. HOWARD has at long last taken advantage of his long-earned vacation and set out for the Empire State to get away from it "oil." His wife Helen is originally from New York and accompanying Paul and Helen is Lucia the younger daughter. Marjorie was married last month or so to Dennis Daly, a big FFA man who is doing all right with Agriculture. Marjorie will be

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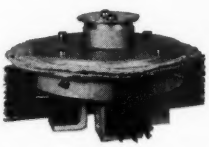
THE CAVINS DUMP BOTTOM...

is the tool you need for dumping any amount of cement, sand, gravel, acid, or chemical, etc., in a continuous operation without interruption. The full open throat eliminates the hazard of stringing a load through the fluid column. There are no valves, sleeves, or ports to become fouled or clogged—no danger of accidental or premature unloading due to line whip or faulty brakes.

THE CAVINS BRIDGING PLUG



... for use in combination with the CEMENT DUMP BOTTOM, is ideal for use in starting an off-bottom bridge or plug. Made of drillable material, can be used for temporary or permanent installations.

24 HOUR SERVICE FROM...

THE CAVINS COMPANY

Long Beach: 2853 Cherry Ave., Phone 485-64 • Ventura: 1641 N. Ventura Ave., Phone 6767 • Santa Maria: Phone 1210-L • Bakersfield: 1120 33rd St., Phone 6-6860 • Taft: 204 Center St., Phone 1127

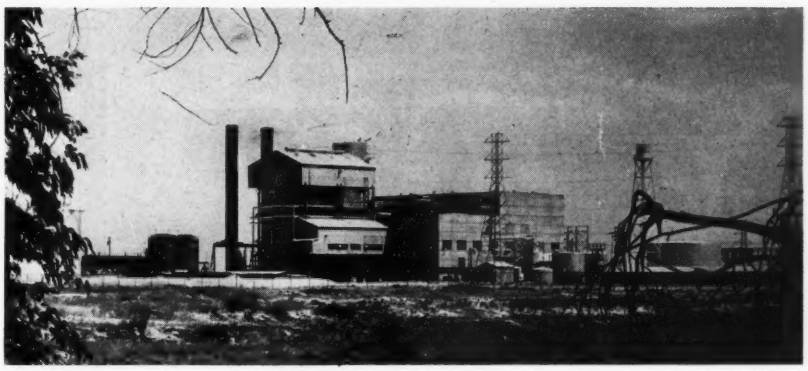
able to go every year if farm prospects keep on showing increasing returns.

STANDARD STATIONS INCORPORATED is on the move again . . . this time to Fresno in order to give way to more office space needs for Kern County. Kern has had nothing but increasing returns for a century now and needs have to make way for such progress. "A CENTURY OF INCREASING RETURNS ANNUALLY" might be a good slogan. Although the one we saw today was most excellent: "Let us check your tires . . . welcome" etc. . . .

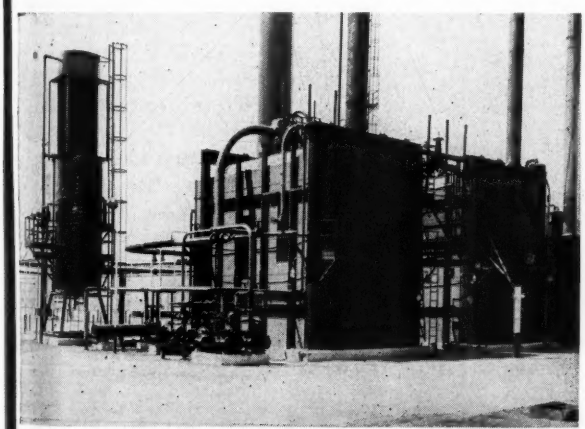
LARRY MILLER sold us the "burro" the other day. We auctioned it off that afternoon to a barber at the Padre whisker works. Larry is a very humanistic person and made us bid on a little desert canary down at the auction yards across from Harry Phoenix's Oilfields Trucking business. Larry said he felt sorry for a one-eyed freckled-faced kid from Mojave who wanted to sell his "midget mule." The auctioneer asked five dollars and Larry motioned a salute to me across the auction ring. I nodded "hello" and the burro was mine. Both of us have plans about the animal and if you really want to know what Larry wants me to do with it . . . let him tell you.

BOB McCARTHY of the tank and steel company by the same name is doing some business over at Cuyama . . . Ralph Ryan tried to tell us . . . but he is a newshawk and we are farmers so we will wait until the next issue to properly define the orders he is taking.

HERM WEDDLE geologist here for Standard facility told us he was taking off on the annual vacation very shortly. Going up to the big Bishop country for three weeks. That means he has been around for about fifteen years. If it had been five weeks then we should have known that this was his 25th year



OIL IS POWER as it goes to work for this 8 story PG&E steam plant recently opened in Kern County to firm up the principal power used for pumping more oil for more power. Situated near Fruitvale the plant is still not running full capacity but has taken over the load needs for Greater Bakersfield and its 105,000 persons and their industrial needs.



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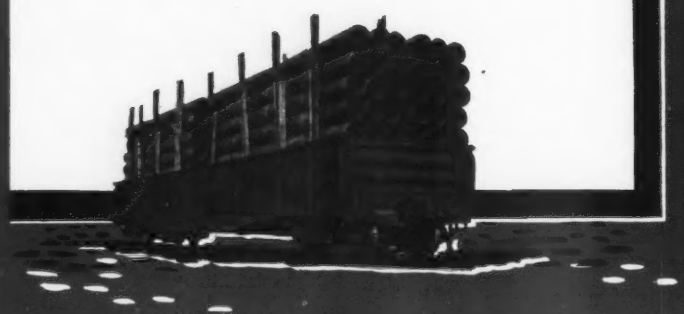

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and that again next year he would have only three weeks. One of Herm's friends is taking a six weeks vacation, and that means thirty years this year with Soco. No matter how he figures it, it is only three weeks next year. So now we don't know if Herm is there 15 years, 25 or 30. Are we confused.

ENNYRATE, Leona Parmenter heard wedding bells for June and after getting Arvin country from whence she came all excited, she still is not going to be home there, and she and BOB FIROBED her husband will make Bakersfield their home. Leona is now back with the Soco Exploration Department. Buck Parmenter, her Dad, couldn't make a farmerette career, career enough for her after all.

DWIGHT BOVEY of "WOSCO" is on vacation . . . at least that is what Sam Truax told us from the Agricultural Division of WESTERN OILFIELDS SUPPLY COMPANY. Probably combining a little selling along with the trip as Dwight, like all young energetic "Yankee" tradesmen, lives his business and likes it. Most of us do, anyway.

OF ALL THINGS, we called Sacramento today and found BILL GALLIENNE trying to talk KEN FRY out of Kern County's exhibit space at the State Fair. Bill hails from Huntington Beach and oil country by the sea. This is the first time we have ever caught Bill slant drilling off the beach.

AFTER THE TUMULT AND ESCROWS die out at Cuyama, it looks like the field will settle down to another great producing area . . . for California. Santa Barbara boosters are getting ready to tap the rich country, but so is Kern. The stuff we get comes out of a different spigot, however.

FROM CATALINA returned our Conservation Committee manager for Kern and San Joaquin Valley areas and other points downward. Barney Barnard, who had a whale of a rest and release on unimportant matters. We think he should have had the paint job now going on in his office whilst away. As it is now he is behind the "Canva Curtain" trying to make up a report on the Conservation Curtain with permis-

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sion from the painters, not the conservationists.

RICHFIELD has made seven completions at this writing out in Cuyama. Independent Exploration we heard was going in to develop something. Navy had a bad fishing job on the day we were over. Our airplane pictures were hazy on account of the soil being kicked up with activity of developers in various facility needs in pioneering a strike in bounteous resources.

"EAST IS EAST AND WEST IS WEST," BUT THE "WESTERN LUBE" AND THE "EASTERN LUBE" NOT ONLY MET, BUT ARE GETTING MARRIED.

The Oildale Golden Bear Refinery has processed a new type of producing solvent-processed oil on a par with the east, and being purchased by eastern and western firms.

Years of research by technicians of the Golden Bear Oil Company plant and laboratory in Oildale have developed high-grade finished solvent-refined motor oils which will stand the tests of the finest eastern oils.

This information was relayed by the vice-president and general superintendent Charles P. Prewett of the Golden Bear Oil Company refinery, who asserted: "We have broken down the belief that western oil could not be produced to equal eastern oil for motor-car lubrication service."

The Oildale plant is the only independent refinery in the west to use the newly-developed solvent extraction process.

Certain Kern crude oil is channeled from Poso Creek to the Golden Bear refinery by trucks and pipelines. The company has 35 producing oil wells of its own, Prewett reported, and the crude supply is supplemented by purchases from nearby fields.

This solvent-refining process extracts 65 per cent of insaturate substances from the crude oil which ordinarily hamper mechanical efficiency because of sludge and carbon.

Refinery superintendent M. B. Pardew pointed out that the Golden Bear refinery vacuum-distills crude products, and "breaks up" oil into different fractions: lubricating oil, diesel fuel, and kerosene oil.

When lubricating stocks and lighter fractions have been removed, the heavy material left is diverted for asphalt and road-oil use, said Pardew.

"Overhead" fractions from vacuum distillation are then solvent-extracted into various grades of lubricating oils, such as citrus-type spray oils and technical oils.

Large quantities of the highgrade motor oil produced by the Oildale plant are poured into tank cars on sidings adjoining the refinery for shipment to eastern seaboard.

Demand for the new type of Kern-produced product in the east has increased because the solvent-refined oil has a low-pour point and is ideally adapted for cold weather, Prewett explained.

During the war the Golden Bear plant provided huge quantities of the new-type oil for the armed forces in the Aleutians, owing to its cold-weather efficiency and usability for cleaning firearms.

"We don't make a drop of gasoline," emphasized Prewett, "hence crudes refined by our Oildale plant have many lubricant qualities."

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The bulk of the Golden Bear Oil Company's plant production has been in the refining and processing of oils for diesel trucks and industrial motors.

Now, however, laboratory technicians at the plant are conducting research into the rubber and chemical fields for the manufacture of petroleum products that can be used in the rubber industry, Prewett disclosed.

Almost all of the laboratory work, however, is confined to control oper-

RENFRO

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ations on various products of the plant, and research and development of new products.

According to Pardew, plans are under way for the manufacture of white oils.

The Golden Bear Oil Company began operations in 1931 and started refining process in 1934. Production of solvent-refined oils began in 1942, Prewett said. The plant employs 85 workers and has a pay roll soaring into thousands of dollars each month.

STORY OF CONSERVATION for California continues to be interesting. Most of us know the primary purposes involved with the Committee from the Oil Producers. Chairmen of the 27 different areas are also vice presidents . . . the vice chairmen are alternates also elected by the consent of the committee. Its a really democratic process . . . spelled with a small "d" . . .

IN KERN COUNTY drilling is at its peak too, along with the rest of the new highs. We took a run around "Drilling Street" . . . Contractors Row and every rack was empty except one or two in for a new face lifting job.

WITH STEEL SHORT TOO and the price of it up. By the by that small price rise in steel per ton . . . well just in case all of us didn't know it unless you are a bit man you wouldn't feel it quite so soon.

OUT AT UNION in Kern County we noticed that **Basil Kantzer,** chief engineer has been made manager of production here abouts. AND he takes "Swede" Larson's place . . . who in the event you all didn't know it has gone to Los Angeles to be in charge of field operations according to the rumors flying around Supply Avenue.

BILL BARBAT is back from Alaska again where he got down to earth again with the cold facts not so easily disputed as they are in Washington.

NEVER A DULL MOMENT in Kern . . . this Tejon Hills Oil Company showed us a sample of the real thing and no one believes it comes from such shallow drilling. With oil flowing from 400 feet in 30 degree gravity. Fried, Nance and Miller seem to have something none of the rest of us has. Another impossible field . . . but a "swell oil province."

AND ALL THIS MAKES business. However, we met a sour helmet the other fortnight ago that we didn't mention before. Said he, "don't think much of Cuyama . . . prices too high . . . $200.00 per acre bonus plus 6th to 8th royalty. Why in the San Josay Valley ye can get her for $50 . . . per acre per year."

ALTHOUGH FANTASTICALLY HIGH brokers are making a lot of money . . . Not much mineral fee-consummation but surface rights are always considered.

ROBERT MUCKLER from Superior was in the other day looking up civic organizations who are trying to stop trucks at old Fort Tejon for check and a chance to get into low gear for sure. SUPERIOR transportation is just what it says . . . "superior" and the firm has pioneered in safety all along the line . . . their experiences with disaster never happen twice in the same place. Bob's influence for good will probably carry a lot of "stick" because the Superior is well respected for its pioneering in better service.

SANTA BARBARA and Kern Counties are in a big bid for fame and fortune as regards building highways to tap Cuyama's **"kwee-yomma."** Santa Barbara chamberwigs are out to make 70 miles a downhill pull all the way to Santa Maria for trucks, tank trailers and even oilpipelines. The farmers are crazy about the idea . . . but Kern has only 20 miles to do and keep it all in its backyard instead of Santa Barbara's front portal. In Europe this would be grounds for something or other and perhaps a war. Over here someone will toss a coin because the state will build and it is hard to say whose tax money is being wasted or invested for whose public service and good.

IMAGINE A QUARTER OF A CENTURY AGO, "paps of Taft and Maricopa, with their wives, families and friends went to Rio Bravo to spend the day." Five years before that, however, Elmer Hass and family from the Union Oil went to Riverside for two weeks . . . according to the "MIDWAY DRILLER."

STOCKDALE recently was a scene of oilwigs and farmjigs in an exchange of recreation and fellowship "knowhow." It used to be that the oilmen for a quarter of a century outnumbered the farmers but the facts seem to be reversed. However, in case you have forgotten our story in "COW" last month OIL has gushed ahead of farm income by a ten million dollar difference.

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Field Development

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Los Angeles Basin

Aliso Canyon Well Completed

Standard of California's Frew No. 1-5 test on Sec. 29-3n-16w in the Aliso Canyon area has been completed at 8678 ft. for a current yield of 901 barrels of 19.8 gravity oil daily, along with 310,000 cubic ft. of gas. Sepulveda No. 113 on Sec. 8-4s-17w in the Del Valle area is grading. Lomita Land & Water Co. No. 3-1 wildcat on Sec. 19-5s-11w at Sunset Beach is spot coring at 10,387 ft. L. A. I. No. 4-1 is a location at Inglewood on Sec. 20-2s-14w. The new Six Companies No. 5 on Sec. 2-3s-15w at El Segundo is making 37 barrels a day from 6967 ft.

Montebello Wildcat Digs

West of Montebello, Rothschild Oil Co. is drilling on down at 2855 ft. in Wheeler No. 1 try on Sec. 2-2s-12w.

Olive Area Test Scene

Standard of California is continuing to drill steadily ahead at 2235 ft. with its Taft Comm. No. 1 on Sec. 20-4s-9w in the Olive area of Orange County. British-American Oil Prod. Co. is drilling at 2907 ft. with its Fluor No. 1 on Sec. 24-4s-10e. The general area some years ago was explored by Shell Oil Co., which found oil in sub-commercial amounts.

Brea Test Drills Ahead

In the Brea district in Orange County, Pacific Western Oil Corp. is prospecting ahead at 4663 ft. with Brea Comm. No. 2-1 test on Sec. 11-3s-10w.

Silverado Try Rigged

Ready to spud is North Star Mining & Dev. Co.'s North Star-Johnson No. 1 wildcat on Sec. 8-5s-7w in the Silverado Canyon area in Orange County.

Newhall Area Adds Drilling

In the Elsmere area near Newhall, Indian Oil Co. has locations staked for Wanda Kraft No. 2 and Sybold Comm. No. 1 and No. 2 on Sec. 31-4n-15w. Wanda Kraft No. 1 was completed at 815 ft. for an initial output of 60 barrels a day. Crawford and Hiles have added Newhall No. 1 on the section for 30 barrels daily from 946 ft. W. J. Carter is awaiting portable rig to begin drilling Carter-Earl No. 1 on Sec. 5-3n-15w. Parbe Oil Corp.'s new Philbert Comm. No. 3-1 producer on Sec. 31 is good for 20 barrels a day at 1005 ft.

Nelson-Phillips Oil Co., which opened the area to production, is grading for Kraft No. 4 and has location for Swall-Ferrier No. 2 on Sec. 31. Nelson & Associates' K-D No. 1 is a location on the same section. Having bailed mud, Lomita Oil Well Service Co. is ready to abandon Dewey No. 1 on Sec. 1-3s-11w. Standard has completed Placerita No. 1 on Sec. 6-3n-15w for 22 barrels from 821 ft.

Ned Barmore's Hayes No. 1 test on Sec. 36-4n-16w near Newhall is drilling at 1603 ft., W. W. Bush

Pike Drilling Co., contractors on Basin Oil Co.'s Community No. 7-1 in the Inglewood Field. Rear row, left to right: E. Emard, driller; T. O. Pattishal, backup; E. S. Weaver, cathead; front row, left to right: C. C. Alford, derrick; Herb Flynn, lead tong.

has staked location for Perkins No. 1 on Sec. 10-3n-16w. R. W. Sherman is rigging his Newhall Comm. No. 3-1 on Sec. 2-3n-16w.

Alondra Park Venture Digs

North of the abandoned Village Comm. No. 2, British-American Oil Prod. Co. is drilling at 3670 ft. with Bodger No. 5 on Sec. 22-3s-14w in the Alondra Park area, Los Angeles County. Location falls north of Compton boulevard.

Chino Try Setting Pipe

Chino Hills Oil Co. is preparing to run casing in its Chino Hills No. KB-4 on Sec. 33-2s-8w in the Chino Hills area, San Bernardino County. Mercury Oil's No. 1 on Sec. 32-2s-8w is idle at 1273 ft.

Puente Try Idle

Following the swabbing of water and mud with a trace of oil, Louis H. Didier's Wilson Ranch-Didier No. 1 on Sec. 19-2s-9w near Puente is standng idle. Bottom is 2022 ft.

Castaic Try Starts

Humble Oil & Refining Co., which recently entered the California oil development picture, is starting L. A. Honor Farm No. 1 on Sec. 1-4n-17w in the Castaic area.

Wilmington Wells Start

Warren L. Meeker is preparing to drill Bank No. 2 near Broad and E streets in the Wilmington field. Location has been staked by Holly Development Co. for Dominguez No. 5 near F and Eubank streets in the field. Both of these wells will contract the drilling.

Long Beach Hole Begins

R. W. Jerman, Inc., has foundation in for Victory No. 1, a well located near 31st and Elm streets at Long Beach, which is designed to go 10,000 ft.

Los Angeles Try Listed

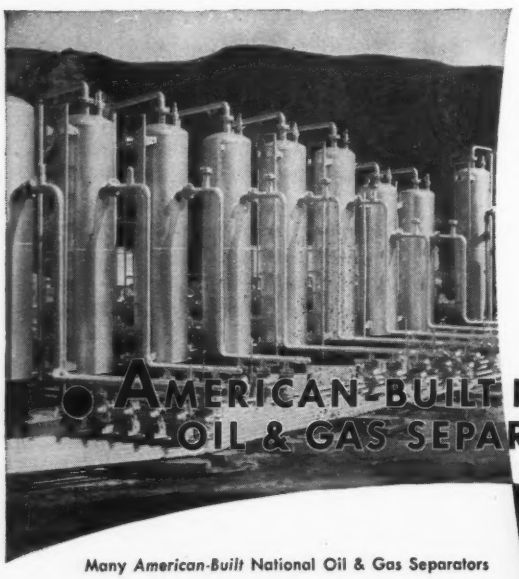
In the East Los Angeles area, Richfield Oil Corp. has staked location for Edison-U. P. Unit No. 1 on Sec. 16-2s-12w.

Whittier Try Locale

Still a location is Union Oil's Union and Fullerton Oil's Mineral Springs No. 3 wildcat in Sec. 25-2s-11w near Whittier. Work is expected to start in the near future.

Athens Area Active Center

J. P. Getty, Trustee of Estate, is coring at 8271 ft. with Howard Park Fee No. 1 test on Sec. 12-3s-14w in the Athens area. The 7-in. casing is set at 8110 ft. Foundation is in for Southern Calif. Petroleum Corp.'s Block No. 86-1 on Sec. 12-3s-14w. Meeker and Garner's Deist No. 86-1 is a location on Sec. 12-3s-8w. In the northwest Athens area, Pacific Western is rigging up Howard Park Comm. No. 1 on the same section.



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San Joaquin Valley

Comanche Point Interest Center

Comanche Point is the scene of a surprising and important shallow oil discovery.

The find was made by Tejon Hills Oil Co.'s Tejon Hills No. 2 on Sec. 10-11n-18w, which was completed at 408 ft. for 50 barrels of 30 gravity oil daily, cutting 3 per cent. No more than 24 hours was required in carrying the hole to finishing depth. Oil sand was evidently encountered at a depth approximating 380 ft. The 9-in. casing is set at 375 ft. and tubing hung at 395 ft.

Possibility of additional oil sand under the zone being produced was indicated in electric log of Tejon Hills No. 1. The latter found the sand wet on top and bottom.

Tejon Hills No. 3 on Sec. 11-11n-18w is drilling at 481 ft., after topping oil sand at 461 ft. No. 4 is a location on the same section. Principals of the Tejon Hills organization are Julius Fried, Fred Miller and Richard Nance. Company engineers are Diepenbrock, Kemnitzer and Richards.

San Emigdio Well Bailing

Apex Petroleum's Los Lobos No. 5 on Sec. 5-10n-22w in the San Emigdio area is bailing from a plugged bottom of 1365 ft. Original depth is 1825 ft. On Sec. 14-10n-23w, Blue Ridge Oil's Blue Ridge No. 1 is idle temporarily at 500 ft. Apex Petroleum's Herring No. 1 on Sec. 14-32s-29e at Comanche Point is boring on down at 8225 ft.

Devils Den Try Slated

International Exploration Co., headed by Arthur C. Fisher, has plans drawn for an exploratory hole on Sec. 15-25s-18e in the Devils Den area. Known as No. 1, the well will drill slightly less than a mile southwest of the Alferitz producing wells.

Gilliland & Lyte Oil Co., which recently acquired properties at Devils Den, plan to clean out and test the old Standard of California Alferitz No. 1 on Sec. 14-28s-18e. The company also has under consideration a shallow drilling program for the area.

Pyramid Hills Wildcat Starts

Panksley & Southard will drill Avenal No. 2 on Sec. 15-24s-17e in the Pyramid Hills area of Kings County. Location falls about a mile and one-half southeast of Welport Oil Co.'s old H. B. Porter No. 1 wildcat, which was abandoned around 3940 ft.

Bacon Hills Test Fishing

Drill pipe fish still is holding up normal operations in Seaboard Oil Co.'s No. 58-21 test on Sec. 21-28s-20e at Bacon Hills. Present depth of the well is 9467 ft., with top of fish at 4040 ft. The company's Porter No. 1 on Sec. 28-30s-29e near the Edison field is also working on a fishing job. Top of drill pipe fish is 1374 ft., with hole bottomed at 1439 ft. Western Gulf Oil Co. has abandoned at 7138 ft. its Spencer A-U.S. No. 18-34 on Sec. 34-28s-20e.

Buena Vista Try Drilling

Drilling hard shale at 11,970 ft. is the latest word on Western Gulf Oil Co.'s B.V.A. No. 18-3 in Sec. 3-32s-25e at Buena Vista. Di Giorgio No. 3 in Sec. 10-31s-29e in the Mountain View area is preparing to drill ahead from 3610 ft., after drill pipe was lost and recovered successfully.

Cantua Creek Wildcat Deeper

On the Turk anticline southwest of the Helm field and near Cantua Creek, Superior Oil Co. is drilling at 10,098 ft. with Harnish Bros. No. 1 wildcat on Sec. 25-17s-16e. Morton-Nissen No. 1 explorer on Sec. 20-30s-30e at Edison continues to drill deeper at 1805 ft.

Blackwells Corner Wildcat Prospects

British-American Oil Prod. Co. and Western Gulf Oil Co. are drilling at 6551 ft. in their jointly sponsored Beer No. 11-22 wildcat on Sec. 22-26s-19e at Blackwells Corner in Kern County. Woodward and Reynolds' Mabury No. 3 try on Sec. 25-26s-18e is making hole at 560 ft.

Rosedale Try Digs

At Rosedale in Kern County, Continental Oil Co. is prospecting ahead below 4800 ft. in K.C.L. No. P-1 on Sec. 11-29s-26e.

In the Huntington Beach Field at Signal Oil & Gas Co.'s Bolsa No. 30-A. Front row, left to right: H. R. Montgomery, cathead; John Ryan, backup; rear row, left to right: Jno. Cannon, driller; Morris Hackett, lead tong; Ted Hadsell, derrick.

Elkhorn Valley Wildcat Stops

Elkhorn Oil and Dev. Co.'s Norris No. 1 on Sec. 28-32s-22e in the Elkhorn Valley area of Kern County has been abandoned at 3420 ft. The Short interests are understood considering a wildcat in the area.

McKittrick Try Deeper

On Sec. 34-30s-21e in the McKittrick area, Union Oil Co. is drilling in R. & K. No. 1 wildcat at 6344 ft. Signal Oil's Signal-Pike No. 1 on Sec. 10-30s-22e is down 7505 ft. and testing. General Petroleum's Ninkovitch No. 62-9 on Sec. 9-30s-21e is testing water shut off of 7-inch stub line. Original depth is 11,283 ft., with plug at 10,186 ft.

Arvin Area Adds Interest

British-American and Capital Co. are drilling at 5764 ft. in Hansen No. 57-A-26 try on Sec. 26-31s-29e at Arvin. Arvin A No. 36-26 is making hole at 3811 ft. Honolulu Oil's Borden Comm. No. 1 on the same section is prospecting ahead at 4010 ft. On Sec. 3-32s-29e, Ohio Oil's Mitchell No. 1 is growing deep. The hole at last reports was down 11,187 ft.

Shale Hill Well Begins

Signal Oil & Gas has made location for Signal-Honolulu-Twisselman No. 1 on Sec. 22-27s-18e at Shale Hills in Kern County. Miller & York's Mounford No. 1 on Sec. 18-27s-19e is ready for abandonment at 1598 ft.

Comanche Point Wildcat Rigging

Homer Grizzle is rigging Grizzle No. 1 test on Sec. 3-11n-18w in the Comanche Point area. It is about a mile and one-half north of Tejon Hill Oil's new shallow discovery well. C.C.M.O. Co. is rigging up for Tejon Ranch No. 1 on Sec. 23-32s-29e.

Kettleman Hills Project Fishing

Standard of California's S. F. & F. L. No. 4-2 on the South Dome of Kettleman Hills is fishing drill pipe, with top at 9023 ft. The hole currently is bottomed at 12,922 ft. The company has abandoned Buck Comm. No. 26 on Sec. 28-29s-29e at Race Track Hill. B. M. Cohn No. 10-2 is a location on the section. KCL No. 12-21 at Greeley on Sec. 7-29s-26e is rigging derrick.

Middle Dome Try Repairs

Equipment is being repaired on Middle Dome Corp.'s No. 52-30V in Sec. 30-23s-19e in the Middle Dome area of Kings County. Present depth is 3789 ft.

Globe Try Spot Coring

Shell Oil's Vedder-USL No. 1, a wildcat on Sec. 9-31s-22e on the Globe anticline is spot coring at 10,220 ft.

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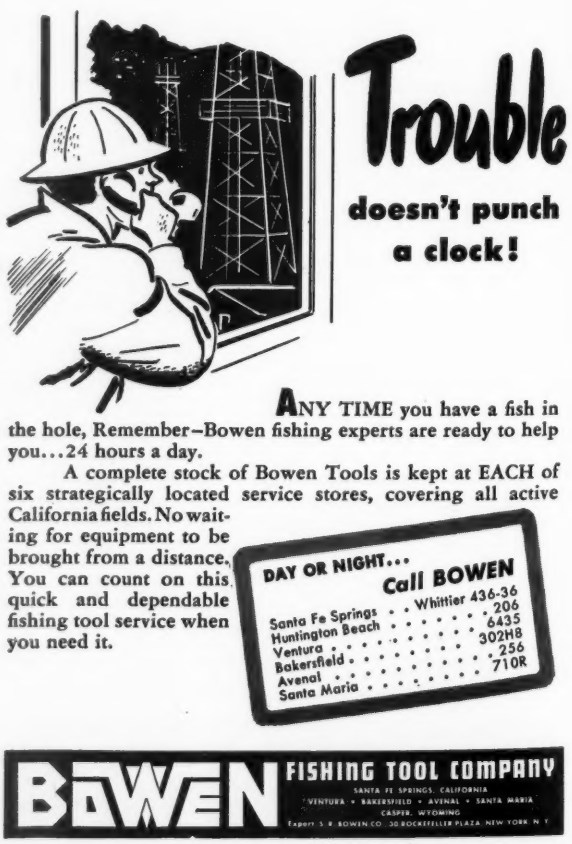
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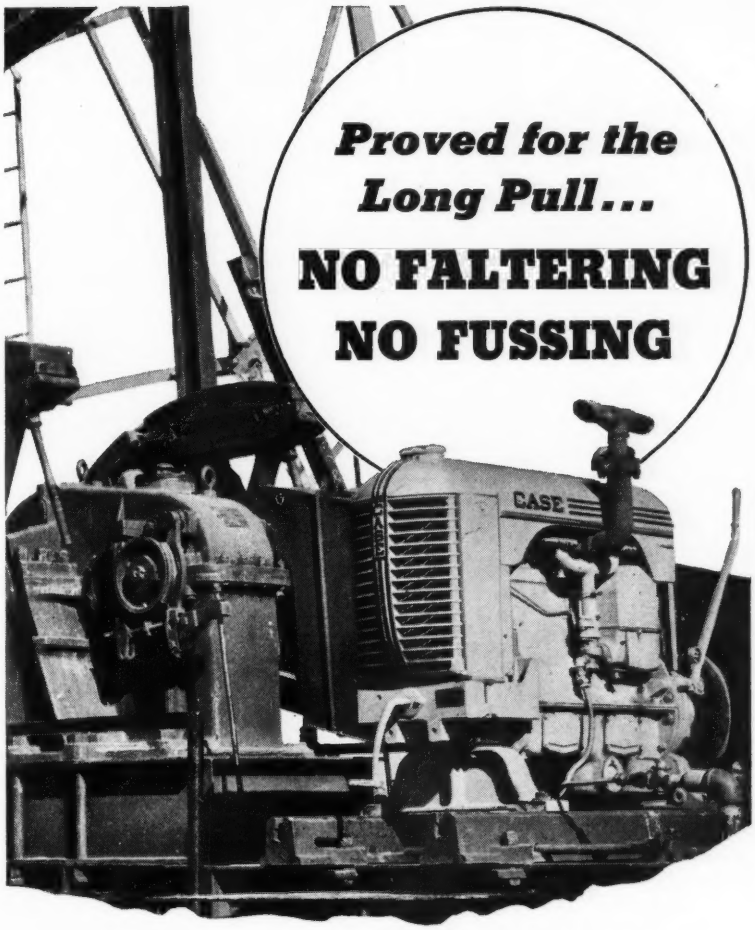
Cuyama Valley Adds Production

Richfield Oil Corp. has completed three new wells at Cuyama Valley. Russell A No. 18-5 on Sec. 5-10n-27w was finished at 3629 ft. for an estimated 1000 barrels daily. Russell B No. 11-8 and No. 31-8 were completed at 4009 and 3640 ft., respectively, for 300 barrels and 904 barrels a day each. No. 41-8 on the section is drilling at 1140 ft. Russel A No. 17-5 on Sec. 5-10n-27w is swabbing for production at 3438 ft. On Sec. 25-11n-28w, F. R. Anderson No. 85-25 is drilling below 3400 ft. No. 27-32 is a location on Sec. 32-11n-27w. The company's Victoria Wood No. 1 on Sec 9-10n-28w at last reports was drilling at 2853 ft. The project is a short distance from the first well on the lease which the original operator reported in oil sand when a fishing job complicated matters. Richfield's von Glahn & Frank No. 58-30 on Sec. 30-11n-27w is coring at 3915 ft. Cebrian Estate No. 1 on Sec. 23-11n-28w has reached 3594 ft. and continues to drill on down. Quality No. 41-31 on Sec. 31-11n-27w is grading. No. 73-31 on the same section is prospecting below 2300 ft.

Approximately 11 miles east of Russell Ranch production, George Noonan and Gene Reid Exploration Co. are rigging Wallace No. 1 on Sec. 6-9n-25w. John B. Peak is ready to start the drill in Stone No. 1 on Sec. 16-11n-28w. On Sec. 12-10n-28w, Navy Oil and Independent Exploration have made location for No. 2. Navy's first hole went to 4980 ft., before mechanical difficulties brought about abandonment.

United States officials of Los Padres National Forest have reported in Santa Barbara that drilling in the Cuyama Valley has set off a rush of requests for oil and gas exploration permits. This year so far more than 250 applications have been processed, compared with 12 for all of 1947.

Permits in the past mostly involved the Ojai area of the forest stretched over the counties of Monterey, San Luis Obispo, Santa Barbara and Ventura to the Los Angeles County line.



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CASE

Coastal and Northern District

Solano County Gas Try Starts

Under the sponsorship of Honolulu Oil Co. a new gas try is starting on Sec. 25-4n-1w in the Denverton area of Solano County. The venture, known as Peterson No. 1, is 1600 ft. north of McCormick Estate No. 1.

Arroyo Grande Adds Wildcat

In the Arroyo Grande area in San Luis Obispo County, Macoil Corp. has staked location for an interesting test tagged Miossi No. 1 on Sec. 34-31s-12e.

Santa Rosa Hole Drills

L. W. Lenhart's Ramondo Core Hole No. 1 on Sec. 24-7n-9w in the Santa Rosa area of Sonoma County is making hole ahead below 900 ft.

Hopper Canyon Project Listed

Richards & Rowan's Cosby No. 1 exploratory project is a location some 800 ft. north and 1000 ft. east of the center of Sec. 14-4n-19w in Hopper Canyon, Ventura County.

Willows Try Works

Drill pipe is stuck at 5549 ft. and Shell Oil has embarked on a fishing job in its Glide No. 2 gas try on Sec. 14-7n-3e in the Willows area of Yolo County. Top of fish is 1032 ft. The hole is bottomed at 6958 ft. James No. 1 in the Willows area of Glenn County on Sec. 1-19n-5w is rigging up.

Cat Canyon Try Grading

Ground is being graded for Abbot Jenks Oil Co.'s Dawfield No. 1 try at Cat Canyon on Sec. 32-9n-32w, Santa Barbara County.

Zaca Well Completed

The Zaca area of Santa Barbara County has given Tide Water Associated another well. The latest producer is Davis No. 24, which was completed on the pump at a plugged depth of 3940 ft. for 550 barrels daily. Location falls on Sec. 33-8n-31w, where Luton No. 51 is drilling at 3444 ft. and Chamberlin No. 31 is rigging up.

In the Athens-Rosecrans Field at Shell Oil Co. Inc.'s Howard Comm. 4-1. Rocky Mountain Drilling Co., contractors. J. J. Brown, driller; F. W. Million, backup; G. Britton, cathead; Dewey Close, derrick.

Moorpark Try Starts

An interesting wildcat test is listed for the Moorpark area in Ventura County. It is sponsored by Engineers Syndicate, Ltd., and will be known as Strathearn-Coleman No. 1 on Sec. 12-2n-19w.

Petaluma Try Spuds

Precision Drilling Co.'s Tunzi No. 1 on Sec. 29-5n-6w at Petaluma in Sonoma County has been spudded and is standing cemented with surface casing set on bottom at 300 ft.

Point Arguello Wildcat Drills

Near Point Arguello in Santa Barbara County, Universal Consolidated Oil Co. is drilling at 1631 ft. with Sudden No. 3 test on Sec. 35-6n-36w. Surface pipe was cemented at 207 ft.

Los Alamos Test Drills

Tognaggi No. 1 test, sponsored by Amerada Petroleum on Sec. 14-3n-33w in the Los Alamos area, is making hole ahead at 719 ft. Petroleum Reserve Corp.'s Wickenden No. 2 on Sec. 34-9n-32w is digging at 3487 ft.

Goleta Wildcat Squeezes Cement

Jasper Petroleum Co. is performing a cement squeeze job on its Thos. B. Bishop Co. No. 1 wildcat on Sec. 7-4n-28w, after water shut off failed on first attempt. Redrilled depth is 2567 ft., with 7-in. casing set at 2485 ft. Original bottom was 3241 ft. On Sec. 19-4n-28w, Honolulu Oil is cleaning out Honolulu-Signal-Macco State No. 309-2. Total depth is 10,054 ft.

Summerland Test Scene

Standard of California is preparing to start work on an interesting test well in the Ortega Hill sector near Summerland in Santa Barbara County. It is Williams No. 1 on Sec. 16-4n-26w. Drill site is about

1600 ft. southwest of the Julius Dietzmann well, which flowed gas at the estimated rate of 2,500,000 a day from 3690 ft. and later was abandoned. The company's McGrath No. 42-6 on Sec. 25-2n-23w is drilling at 2042 ft. No. 82-5 on the section is digging at 7733 ft.

Sulphur Mountain Wildcat Swabbing

Richfield Oil is swabbing for production with Freeman No. 1 test on Sec. 21-4n-22w in the Sulphur Mountain area, Ventura County. Bottom is 3452 ft. Casing is set at 1528 ft. E. P. Clark No. 1 at Timber Canyon on Sec. 13-4n-21w is grading.

Guadalupe Tests Ready

Continental Oil Co. is ready to start work on its LeRoy No. 3 on Sec. 2-10n-26w in the Guadalupe area, San Luis Obispo County. No. A-1 is a location on the section.

Sespe Try Exploring

At Sespe in Ventura County, Eagle Rock Petroleum Corp. is prospecting ahead below 1700 ft. with Eagle Rock No. 1 on Sec. 36-5n-20w.

Olivera Canyon Well Completed

Pumping initially 450 barrels of oil a day, Pacific Western Oil Corp. has completed at a plugged depth of 5880 ft. its Williams Holding No. 1 on Sec. 18-9n-32w at Olivera Canyon. Union Oil's McCroskey No. 4 on Sec. 28-9n-32w is drilling deeper at 3870 ft.

Santa Ynez Venture Grades

Road grading is in progress for Ohio Oil Co.'s Unit No. 1 on Sec. 1-5n-20w in the Santa Ynez area, Santa Barbara County.

Shiells Canyon Project Idling

T. & T. Oil Co.'s Hickler No. 1-A on Sec. 22-4n-19w in the Shiells Canyon area of Ventura County is temporarily idle, after producing some oil from 3497 ft. Casing is set at 2200 ft.

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Fillmore Area Programs Wells

Merchants Petroleum is grading roads to drill the first well of an 8-well program designed for the Sespe area near Fillmore on Sec. 5-4n-19w.

Monterey County Activity Brisk

Jergins Oil Co. and North American's Orradre No. 76-11 test on Sec. 11-23s-10e south of San Ardo in Monterey County is preparing to try water shut off. Total depth is 2643 ft. in basement, which was topped at 2623 ft. Oil sand was penetrated from 2122 to 2320 ft. Casing is set at 2128 ft. Ferrini No. 73-11 on the section is awaiting storage. Plugged depth is 2150 ft. Orradre No. 34-12 on Sec. 12-23s-10e is bottomed at 2140 ft.

North of San Ardo, Texas Co. has placed Rosenberg No. 2-2 on the pump for a yield of 29 barrels daily, cutting 8 per cent. The project is bottomed at 2159 ft. on Sec. 34-22s-10e. Rosenberg No. 4 on the section is shut in at 2181 ft. Lombardi No. 3 on Sec. 27-22s-10e is awaiting unit to pump from 2110 ft. Labarere One No. 1 on Sec. 25-23s-10e is drilling at 1841 ft. On Sec. 12-23s-9e, Biaggi No. 1 is digging at 1065 ft. Aurignac No. 3 on Sec. 31-22s-10e has reached 3168 ft. with the drill.

South of King City, Union Oil's Keans No. 1 wildcat on Sec. 8-22s-8e is spot coring and drilling ahead at 4670 ft.

Simi Test Redrilling

Redrilling has reached a depth of 3645 ft. in M. H. Marr's Marr Ranch No. 1 wildcat on Sec. 30-3n-17w in the Simi area. The hole first was carried to 4003 ft.

San Marcos Try Rigging

Derrick is being rigged to start the drill in Fred M. Manning & Associates' Lazy R. G. No. 1 on Sec. 24-6n-29w in the San Marcos area, Santa Barbara County.

Chicago Bridge & Iron Enlarges Salt Lake City Plant

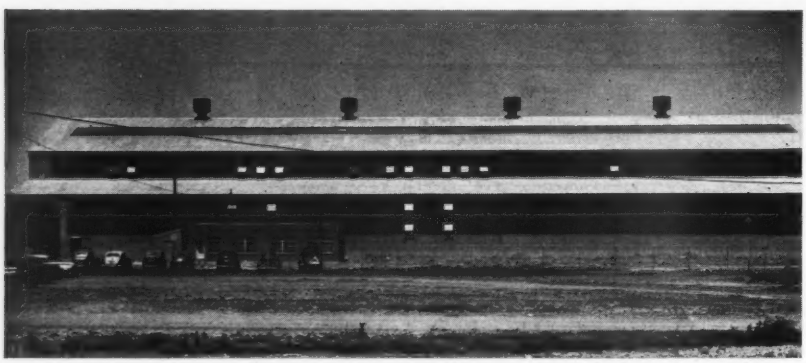
The Chicago Bridge & Iron Company is greatly increasing the facilities of their Salt Lake City, Utah, fabricating plant, which was completed in June of this year. A contract has just been placed with the American Bridge Company for an outside crane runway and Shop Building No. 2.

The new addition, Shop No. 2, as it will be called, will be 125 ft. wide by 420 ft. long. It will be the same type construction as Shop No. 1, and will be equipped with a 20 ton overhead bridge crane. The new outside crane runway will be 100 ft. wide by 360 ft. long, and will be used to unload incoming steel and pass it into Shop No. 1 or Shop No. 2 as required.

It is expected that the new addition will be completed by the Spring of 1949.

When Shop No. 2 is complete, the new Salt Lake City plant will be an integrated unit, with facilities for fabricating practically all of the Company's diversified line of products. Shop No. 1 is equipped to fabricate flat-bottom tanks, Horton Floating Roofs, reservoirs and other structures of this same general type. Shop No. 2 will be equipped to fabricate Hortonspheres, Hortonspheroids, Hemispheroids, Waterspheres, Vaporspheres, elevated tanks and other similar structures.

Mr. A. N. Hopper, formerly Chief Draftsman for the company at its Greenville, Pa., plant, has been appointed manager of the Salt Lake City operations, which is located at 550 West 17th South Street, Salt Lake City.



This view of the Chicago Bridge & Iron Company's new steel plate fabricating plant at Salt Lake City shows a portion of Shop No. 1 and the plant office in the foreground.

Mixing Device for Control of Corrosion in Oil Wells

A new method for controlling electro-chemical corrosion on tubing, sucker rods and pump parts in pumping oil wells has been developed during the past two years by The Cypher System Inc., of Long Beach, California. This method uses a specially designed mixing device to make a stable emulsion of the oil and brine before it enters the pump. Oil is drawn into the mixer at it's lower end and a tail pipe extends downward into the brine, permitting a variation of the oil-brine interface level. Metering orifices in the tail pipe and oil intake maintain a consistent mixture, which, after being emulsified in the mixer, has a high electrical resistance to the flow of currents generated in the well fluid, thus the electro-chemical corrosion is eliminated or substantially reduced.

The device does not create a costly treating problem. Where de-emulsifying chemicals have been used at the surface a reduction of treating costs have been noted, which is probably the result of maintaining a constant mixture at the pump.

Testing well fluid prior to the installation of Cypher Mixer. Similar test is made after Mixer is installed to determine the increase in fluid resistivity.

The effectiveness of the mixing device is determined at the well head sample cock with electronic instruments before and after the installation. Accompanying photograph illustrates the test method.

Oil production engineers are invited to write The Cypher System, Inc., 422 Times Building, Long Beach 2, California, for literature explaining in more detail the method and equipment used.

Oilfield Boilers

Boilers used in oilfield service are usually rated at one horsepower for each ten square feet of heating surface, which will evaporate about 34.5 pounds of water per hour. This is equivalent to approximately two barrels of water for each 10 square feet of heating surface in 24 hours, or two barrels of water per horsepower-day.